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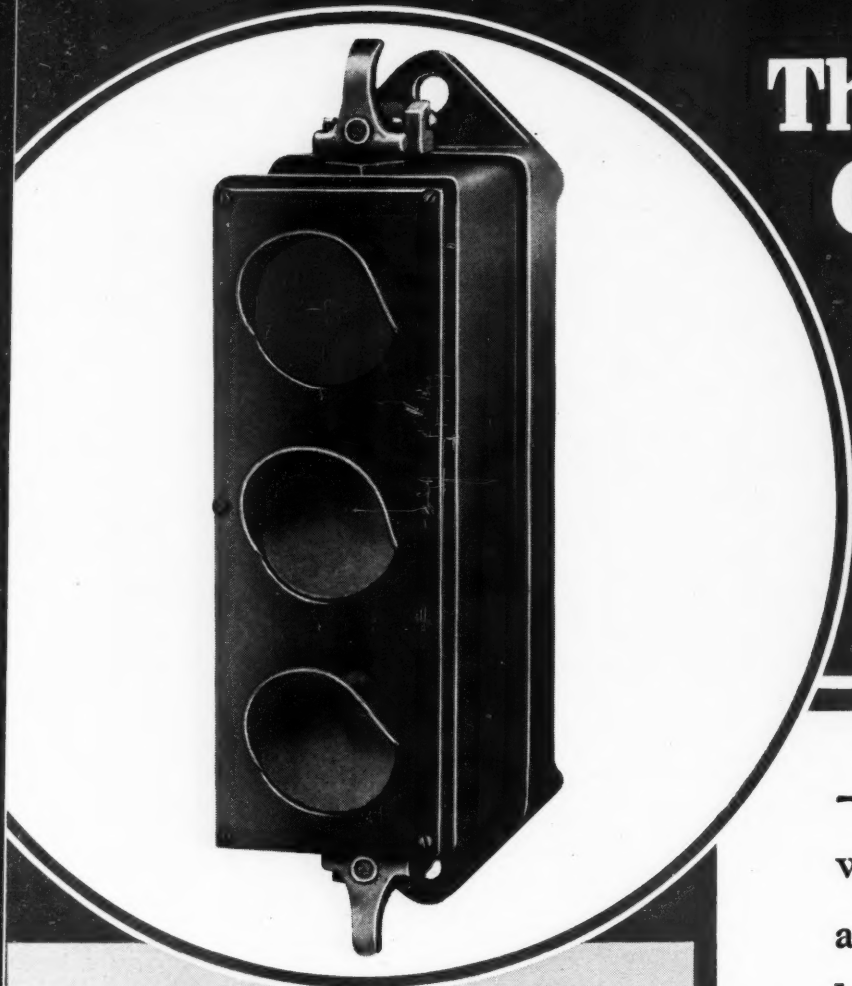
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That "**Union**" Continuous Cab Signals *Facilitate Traffic . . .*

—and permit accelerated service with safety under all weather and traffic conditions, is indicated by the fact that as of January 1, 1939, there were 4,456 locomotives and motor cars with "Union" Cab Signal Equipment operating over 7,373 miles of track.

There must be good reasons for this increased use of "Union" Continuous Cab Signals.

Shall we tell you about them?



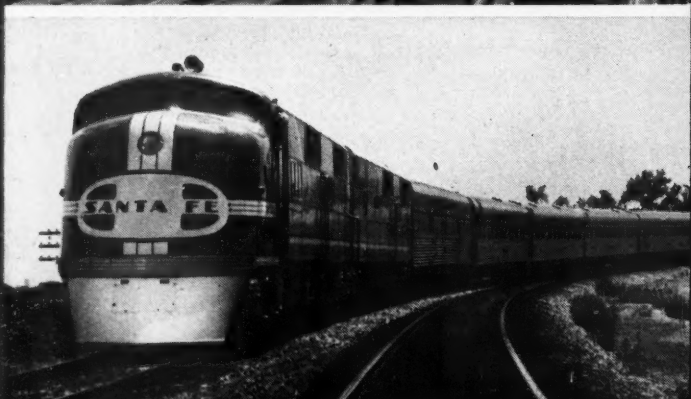
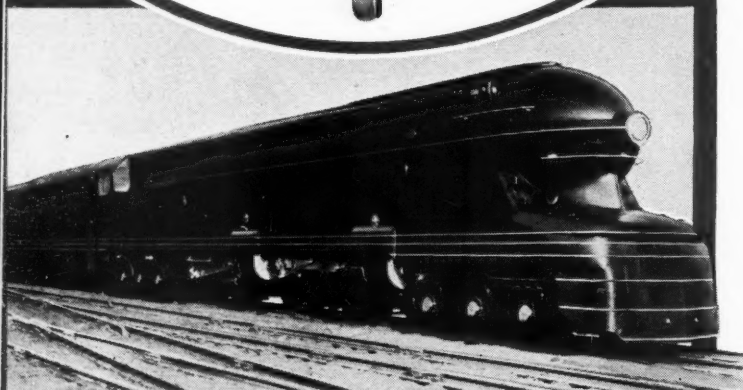
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RAILWAY AGE

Government Financial "Aid" to the Railways

Three proposals involving use of government—that is, taxpayers'—money to "help" the railways are being considered in Washington. One is government purchase of equipment to be leased to them. Another is the making of government loans to them to enable them to buy equipment. The third is the making of government loans to enable them to buy their own bonds and thereby reduce their indebtedness and fixed charges.

These proposals raise certain important questions. The railroads need largely to increase expenditures on their tracks and other permanent structures as well as on equipment. Why, then, all the emphasis on equipment? But do they actually need government aid to increase their purchases? If so, why do they need it after almost ten years of depression—and six years of "recovery" under the New Deal? If they still need it after a decade of depression and six years under the New Deal, why assume they will ever become able to buy government-built equipment now leased to them or pay back government loans now made them? And if they are never to become able to buy equipment or repay government loans, must not the inevitable result be adoption of government ownership and operation? And if so, why not adopt government ownership now and end the agony? If government money could be so used as to help them, in what way could it be used most beneficially?

Government Leasing Versus Government Lending

The *Railway Age* already has recorded its opposition to President Roosevelt's proposal to include in his "spending-lending" program a government expenditure of 500 million dollars for equipment to be leased to the railroads. Significantly enough, it has subsequently developed that the sentiment of the chief executives of railroads and of railway equipment and supply manufacturing companies also is almost unanimously opposed to it. They see plainly that if the railroads cannot af-

ford to buy any certain amount of equipment, they can much less afford to lease it from the government. After all, government ownership of equipment is to that extent government ownership of railroads; and executives of railroads and manufacturing companies are indisposed to co-operate in establishing even this small amount of government ownership.

The case against government loans to enable the railroads to increase their own buying is not so strong. Presumably government loans would enable each railroad receiving them to buy equipment or materials, whichever its management decided it needed the most; to buy in accordance with its own specifications; and to buy from whatever manufacturers it preferred. Many railroads could, upon certain conditions, advantageously borrow from the government to increase their buying.

Conditions Which Would Justify Borrowing

One of the conditions is that the terms offered by the government would be better than could be secured from private investors. Another is that the railroad would be allowed to keep whatever increase in its net earnings occurred, whether due to improvement in its business or to economies effected by the skillful investment of the capital loaned it by the government. For unquestionably most, or all, railways could effect large economies by the skillful investment of new capital in equipment and facilities. But no improvement in business or economies effected by investment of new capital will do them any good whatever unless it results in an increase of net earnings. And from their very inception in 1933 to the present moment the policies of the New Deal have been hindering or preventing increases of net earnings by forcing up the prices, wages and taxes the railways must pay. Therefore, it is the duty of every railway director or executive, in considering government loans, to consider whether there is a reasonable probability that government policies will in future let

net earnings be increased at least enough to pay interest and installments on the principal of the loans.

Government Loans to Buy Bonds

The suggestion that the government lend railway corporations money with which to buy their own bonds is not without its sinister aspects. Why should owners of bonds be willing to sell them at terms on which it would be advantageous for the companies to buy them? Because railway net earnings have been so depressed as greatly to reduce the market value of most bonds. But why have net earnings been reduced so much? First, because of the depression. Second, because of the adoption in 1933, about a year after recovery had begun, and the continuance since of New Deal policies that have restricted production, commerce and consequently railroad traffic by disregarding every sound principle of economics. Third, by the acquiescence of railway management in these policies when in 1937 it advanced railway wages to the highest level in history and in 1938 abandoned a movement for reducing them. In other words, government is principally, but railway management is to some extent, responsible for the failure of railroad net earnings largely to increase within the last six years and for the consequent depression of railway bond prices; and now it is proposed that government shall lend railway management money with which to buy in bonds at these depressed prices. Obviously it would have been much fairer to the bondholders as well as better all around to have done what was necessary to increase net earnings.

It is a fact, however, that whatever the causes, railway bond prices are depressed, and that many railway companies would be afforded at least temporary relief by being given loans at a low rate of interest which would enable them to buy their bonds at low prices. We say "temporary" because there is not the slightest assurance it would be permanent. No railway can derive any lasting benefit from any reduction of its fixed charges or economy in its operation unless it is not to be offset by an increase in the labor costs, prices or taxes that it must pay.

Increased Net Earnings the Only Solution

All of which brings us back to the vitally important point we have emphasized so often in these columns—viz., that **nothing will do the railroad industry any good under private ownership which does not contribute toward an increase of its net earnings (net operating income).** It is a startling illustration of the startling economic dumbness and ignorance of a vast majority of the American people that extremely few seem able to grasp this fact, or why it is a fact. Almost everybody—including even business men—appears to believe there can be some magical solution of the railroad problem that does not include a large increase in net earnings. But there cannot be; and continuance of

the displays of economic ignorance and dumbness in high places and low will, as in the past, not alter that fact in the least.

More Passenger Station Modernization

After a long period of enforced neglect, a number of the railways are giving increased attention to the general appearance, condition and adequacy of their more important passenger stations. This does not mean that the income problem of these railways has been solved or that funds for station repairs and improvement work are more readily available now than during the last six or eight years. Rather, it is a definite manifestation of the growing realization by railway officers that many of their station buildings cannot be neglected further without reflecting unfavorably upon railway service, and offsetting, to some degree at least, the favorable public reaction to the strong come-back which the railways have made in the character of their service.

Throughout the depression years railway buildings have, of necessity, been on reduced maintenance allowances, while the major part of the funds available for maintenance of way and structures work has gone into tracks and bridges to insure the safety of train operation under the increased demands of higher speeds and increased axle loads. To a large extent the need for giving preferred attention to the track structure has continued with equal force throughout the last year, a fact which makes it particularly significant that certain roads within this period have found it possible to do a sizable amount of station repair and modernization work.

The value of attractive, clean and sanitary passenger stations is by no means a new idea with the railways. Many of the stations built during the last 15 or 20 years are outstanding structures in the communities of which they are a part, and most of those constructed in earlier years were distinctly creditable structures when built, in harmony with local requirements and the requirements of the times. Furthermore, many roads still attempt to continue a once quite general practice of maintaining attractive station grounds, with carefully kept lawns, shrubbery and special plantings. Yet many passenger stations require attention at the present time.

The passenger station problem today does not rest so much with the more important stations built within the last 15 or 20 years, especially those of the more permanent types of construction, although many of these stations require attention in one form or another, but is to a much greater extent with those stations of earlier vintage whose facilities have become worn or unsightly through use and abuse, or obsolete through the outstanding advances which have been made in building materials, fixtures and appliances. Criticism of stations seldom has not to do with their exterior archi-

ture if they are kept reasonably clean, and painted if of frame construction, but rather has to do with the condition of their surroundings and of their floors, walls, interior decoration, lighting and toilet facilities, the last mentioned being a most frequent source of complaint. Not infrequently adequate attention to these details will remove all criticism, and will re-establish in good graces a station that offends in its present condition.

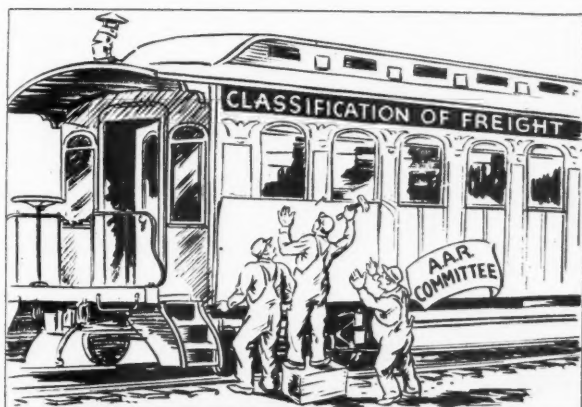
There are places where increased service demands and other changed local conditions require entirely new station facilities, but far more generally modernization

is needed and it can frequently be applied to railway passenger stations at relatively small expense, and with completely satisfactory results from the standpoints of both the railways and the public. The reaction where work of this character has been done has been so universally favorable as to provide ample evidence that adequate, good-appearing and sanitary passenger stations are an important adjunct to enlarged goodwill and increased patronage. As such, this work warrants largely increased attention, especially in those cities and towns which have not "run out" on the railways.

What Will the Traffic Bear?—23

The Association of American Railroads announced last week the creation of a special subcommittee which "began this week the work of further simplifying the classification of all products of industry and the rules which determine the application of the various classifications."

No doubt much can be done within the limited scope of this assignment to make the classification a more understandable and usable document. What is needed, however, is a thoroughgoing revision that



IF YOU WANT A STREAMLINED JOB, MIGHTN'T IT BE BETTER TO START FROM SCRATCH WITH A NEW DESIGN?

will meet the new conditions which have been forced upon the railroads by the advent of freight forwarders and trucks.

A noted student of agricultural practices once said that he had never known a farmer who had destroyed the fertility of a farm to restore it to its original fertility. There is no intention to disparage the good intentions of this effort by the A. A. R.—but **its committee certainly will need to be on guard against the temptation to give undue weight to the historical traditions that underlie the present classification.** Mere antiquity lends no venerability to any railroad practice. Unless this committee can achieve the difficult "about-face" from all orthodox tradition, which arose out of conditions long since past, it cannot measure up to the needs of today's railroad crisis.

The committee has the advantage of a wealth of information relating to the nature of commodities being shipped, but it has the disadvantage of long experience in defense of the present classification, which some people seem to think can be treated almost as an exact science. If the committee is to do the job which needs doing, it must be profoundly impressed by the fact that **present packing requirements are a major contributing cause to the railroads' loss of traffic.** The committee will also have to recognize and **correct the condition brought about by percentage increases in rate levels,** which have widened the spread between c.l. and l.c.l. and enabled middlemen to filch away from the railroads the traffic of shippers of large volume, heavy density and high-rated goods.

The forwarder method of assembling and handling merchandise traffic has demonstrated that it is economical—for the forwarder. When we consider, however, that this handling enables the forwarder to hand-pick an average of 15 tons of "cream" traffic per car, while it leaves the railroad to gather, load and haul the remaining "skim milk," to an average loading of less than 2 tons per car—forwarder handling begins to look less economical. On top of all of this—let's not forget either that, once a forwarder gets the traffic in his hands, he ships a lot of it by truck whenever such handling is to his selfish advantage. When these points are taken into consideration, forwarder handling—which looks so temptingly efficient and economical at first blush—begins to lose its rosy appearance.

Certainly, this committee must recognize that **the effectiveness of truck competition arises largely from the failure of the present railroad classification to reflect cubical displacement, weight-carrying capacity and cost of service by motor truck.** If the railroad classification took due cognizance of the conditions, probably more than half of the trucks now on the highways would vanish.

If this committee brings to its task an open-minded and fact-facing attitude, it can do a job of revolutionary importance to the railroad industry. The question is—is the railroad industry really convinced that it wants that kind of a job done? Will it insist that the committee "hew to the line and let the chips fall where they may"—and will it support the committee if it really does try to do that kind of a job?

Adult Education on the C. P. R.

This movement, started in 1937,
is making excellent headway

"WE have only recently begun . . . to realize that the real task of education is not to bring children to the last grade of the common school, or even to carry them through high school. We have come to learn that even the enormous expansion of the number of our children who will actually obtain the benefits of university education is not enough. **The real educational problem is to provide that the whole of our people shall, throughout their lives, be able to carry on the education which is automatically lifelong, with the assistance of skilled teachers and proper facilities."**

Thus spoke Sir Edward Beatty,* chairman and president of the Canadian Pacific Railway, at the Twenty-first Triennial International Transportation Conference of the Y. M. C. A. of North America at Toronto, Canada, last November.

Sir Edward has always taken a keen interest in educational developments in Canada. He is chancellor of McGill University and former chancellor of Queens University, and is actively interested in the Canadian Association for Adult Education. The Canadian Pacific offers free scholarships annually at McGill University, L'Ecole Polytechnique of the Universite de Montreal and L'Ecole des Hautes Etudes Commerciales, affiliated with the Universite de Montreal, to employees on the permanent staff

and to minor sons of employees. These are subject to competitive examination.

Sir Edward's interest goes far beyond this, however. He believes that the mutual interests of the employee, the company he works for and the state, will be greatly enhanced through the promotion of an adult education program. To accomplish this purpose the Canadian Pacific during the past two years has moved forward almost simultaneously in several directions.

An Educational Survey Was Made

In 1937 an Education Committee was appointed, consisting of thirteen officers representing different departments of the company's service. It was instructed to consider ways and means of encouraging and assisting employees in the development of their own education. Obviously, one of the first steps to take was a survey of what was being done over the entire system. This survey also included an effort to discover the educational interests of the employees, the facilities available to meet these interests, and the methods by which they might be further promoted. The Canadian Association for Adult Education was consulted and one of its representatives made the survey, traveling from coast to coast and interviewing officers and employees at district and divisional headquarters. The survey was completed in May, 1938.

Aside from apprentice training in the shops and the usual instruction and training in operating rules, it re-

* Railway Age, November 26, 1938, page 782.

The "Railway and Steamship Development" Group at Montreal



One of the Public Speaking Classes at Montreal. Meets Directly after Office Hours



vealed a small but active interest in other educational activities which seemed to possess great potential possibilities, if properly fostered and extended. It was found, for instance, in Toronto, that men in train service and shop employees were conducting successfully a series of lectures under the auspices of their own recreation club. Public speaking clubs were also found to exist at a few points.

Sets of Books Were Distributed

At about the time that the educational survey was started in the fall of 1937, the railway distributed what is designated as the Staff Foundation Library. This came about as the result of ideas submitted to the railway's Suggestion Bureau. There was a rather extensive request for material which could be used for self-improvement. To meet it the Education Committee suggested the desirability of a library of ten books dealing with the railway and its operation, Canadian citizenship, relations with the public, public speaking, and other subjects which would tend to encourage a community spirit. Arrangements were made whereby sets of these books could be purchased by the employees for two dollars, the company absorbing the difference in the cost. It was estimated that there might be a demand for as many as 5,000 sets, but so great was the interest that it was found necessary to print 15,750 sets.

The broad range of the subject matter of this library is indicated by the titles of the ten volumes—Factors in Railway and Steamship Operation; Canadian Pacific Facts and Figures; An Introduction to Economics for Canadian Readers; Economic Geography, Economic History and Political Institutions of Canada; Canadian History Through Biography; Correspondence and Salesmanship; Speaking in Public; A Dictionary of Correct English; French Self Taught; and Canada Sings, a 144-page book of familiar songs. The books are bound in attractive red limp cloth.

Staff Bulletin Was Enlarged

The Education Committee early recognized that it would be essential to organize the educational work on

a sound basis and a special representative was therefore appointed to give full time to the promotion of educational activities among the employees. Fortunately the man who made the survey for the Canadian Association for Adult Education was available for this office.

It was also recognized that some means must be established to keep the staff fully and promptly informed. It was therefore recommended that the Canadian Pacific Staff Bulletin be issued monthly instead of bi-monthly and that informative articles and news items be included, relating to educational programs and activities.

Headquarters Office Employees Organize Classes

It is not surprising that with the survey, following closely on the issuance of the Foundation Library, and backed up by the moral support of the management, things began to happen. Even while the survey was in progress, for instance, 49 of the younger employees at the company's headquarters in the Windsor Street Station, Montreal, assembled on December 16, 1937, under the auspices of the company's Education Committee, and undertook to organize groups or classes by the employees themselves, to be self-supporting financially. A subsequent meeting was attended by 165 employees and an organizing committee of 10 was elected to set up a program. The fact that the chairman of this committee was also the secretary of the company's Education Committee, meant that a close link was established between the management and the employees in the educational policy. The employees' organizing committee promptly established classes in railway and steamship development (a lecture course given by officers and heads of departments), public speaking, train rules, choral singing and

French conversation. These courses continued from February 1, 1937, to April 15, and were resumed under the same auspices in the following October.

Each group met for an hour each week in one of the larger offices where suitable accommodation was made available. All the meetings were held after working hours, some at 5:15 p. m. and others at 8:00 p. m. The total number of men and women who participated in these courses up to the middle of April, 1938, was 202. During the fall season, 1938-39, beginning in October and ending in April, 263 employees enrolled in the courses, but actually 587 persons attended one or more of the meetings. During the season 24 lectures were given in the railway and steamship development course, the average attendance holding fairly steady at about 80. A much larger number of employees participated, however, some of them choosing to attend only those lectures dealing with departments in which they were particularly interested.

Activities Over the System

Similar courses were established at Toronto in November, 1938, and proved equally successful. Educational programs were organized by and on behalf of the employees on the Western Lines at Winnipeg, Calgary and Vancouver, including a lecture course, a train rule study group and public speaking classes. At other smaller points, such as Victoria, Edmonton, Regina, Moose Jaw, Brandon, Sudbury and North Bay, study groups and public speaking classes have been conducted. Good progress has been made in these smaller places, notwithstanding the lack of trained leadership.

In December, 1938, the employees in the Montreal terminals outside the Windsor Street Station, were canvassed by the local officers, in co-operation with the special representative. As a result, subsidiary courses were organized at different points within the terminals to take care of special occupational interests. The local lodge of the Brotherhood of Maintenance of Way Employees, in co-operation with the roadmaster and the bridge and building master, organized and conducted a series of meetings, at which papers prepared by foremen, under the guidance of their superior officers, were presented and discussed. Among the subjects treated were surfacing, layout of switches and cross-overs, track patrol, interior and exterior painting, concrete floors and platforms, renewal of ties, and effects of thaw in water lines. Meetings were held every two weeks, with an average attendance of 40.

Freight Terminal Employees Study Groups

At Place Viger Station, the local freight terminal, the employees expressed a desire for courses in public speaking and yard and freight office procedure. They formed their own education committee, selecting men who enjoyed not only the confidence of the local officers, but also the good will of the organized employees, whom they already represented on the local grievance committee. The chairman of the committee was a man who had taken correspondence courses in traffic management. He was not only familiar with the work, but was able to organize the material for presentation to the group. The class met in the main office once a week for an hour, immediately after office hours. Papers were read by the senior employees and were followed by open forum discussion.

Among the subjects discussed were preparing and forwarding the shipment; clerical operations—prepara-

tion of shipping documents and waybilling the shipment; shipment at destination; clerical operations—revising the waybill and preparation of the freight bill; functions of the bond shed and inquiry clerks; yard office accounting operations; functions of tracing and trans-ship clerks; functions of over and short clerks; accounting operations, consolidated circular; and functions of the outstanding department. The average attendance at these meetings was about 35 and the committee is looking forward to a resumption of activities in October, possibly including the adoption of the problem or case method, since it is thought that this may enable the members to participate more fully and derive greater benefits.

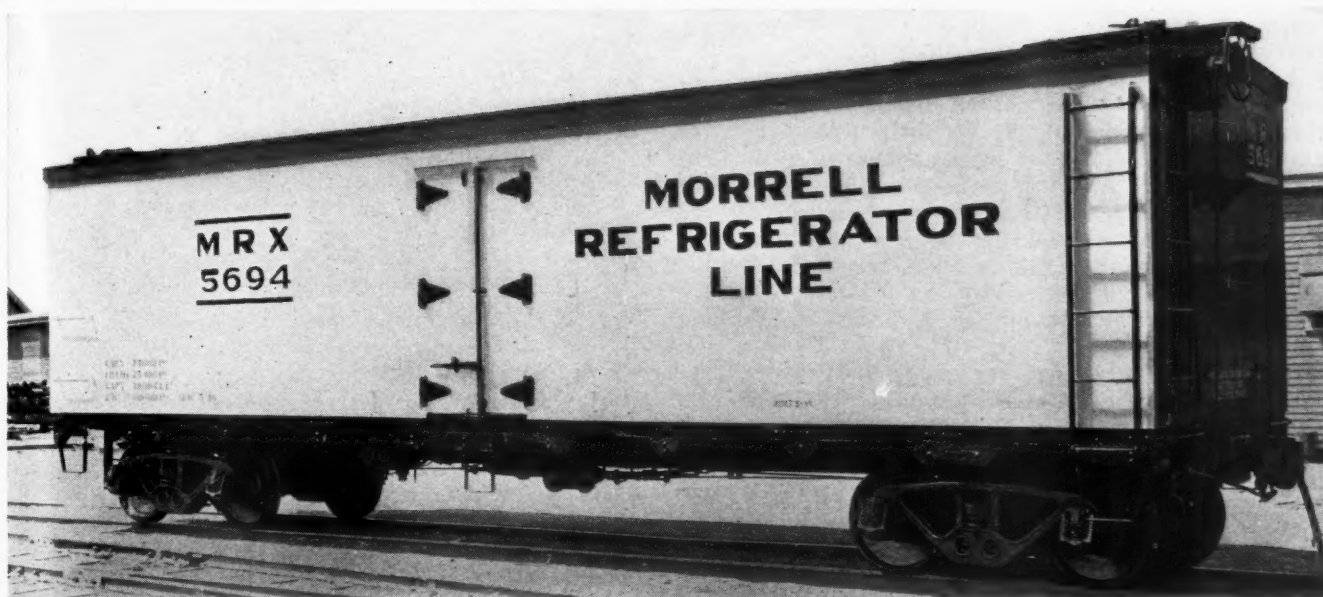
The freight clerks' public speaking class met once a week, with a membership of 20. The bi-lingual situation in the Province of Quebec has introduced a rather unique feature in the courses. The freight truckers at Place Viger, for instance, most of whom are French speaking, asked for a course in English conversation. Arrangements were made for the professor who teaches French to the English employees, to give tuition in English to the French employees. These classes met at the place of work immediately after working hours. About 22 employees took advantage and seemed to be well pleased with the instruction.

Some of the study groups have been highly technical. As an example, the one at Sudbury in the communications department, was led by a senior worker, who took a small group of employees through the theoretical groundwork of electricity, followed by practical experiments in the workshop laboratory, in which the students set up and tested some of the modern equipment used in that department. It not only clearly demonstrated the possibilities of classes in technical studies, but indicated also that a practical man of experience may also be a good teacher.

1,800 Employees Engaged in Study

While exact figures of the total employee participation in these classes during the past season are not available, it is estimated that about 1,800 employees took advantage of them. The movement is only just getting well started. No attempt has been made to formalize it. The employee participation is on an absolutely voluntary basis and wherever fees are required to cover professional tuition, they are paid by the employees. On the other hand, the company has seen to it that meeting places and facilities were available and the Education Committee, assisted by the officers and others interested, has stood ready at all times to do anything in its power to make the movement a success.

Undoubtedly, also, the personal interest shown by Sir Edward Beatty has been an important factor. He has kept closely in touch with the movement in all of its details and was the principal speaker at the second annual banquet of those who participated in the educational courses in Montreal. This was held Tuesday evening, May 9, on board the Duchess of Bedford, a companion ship to the Canadian Pacific's liner, Empress of Australia, which was used by King George VI and Queen Elizabeth on their visit to this continent. In addition to the address by Sir Edward, a report was made by J. C. Bonar, chairman of the organizing committee for the classes in Montreal and secretary of the railway's Education Committee. The chairman of the Education Committee and secretary of the Canadian Pacific Railway, F. Bramley, expressed appreciation to the instructors for their interest in the project. Medals were presented to the winners of the public speaking competition, which was held in connection with the public speaking courses.



One of Ten Plywood Refrigerator Cars Built by General American

Ten Morrell Refrigerators Made of Douglas Fir Plywood

Super Harbord panels replace lumber in steel-frame cars built by General American — Parts and joints reduced 89 per cent; weight 3,100 lb.

THE General American Transportation Corporation, Chicago, recently completed the construction of one hundred 40-ton refrigerator cars for the Morrell Refrigerator Line, Ottumwa, Iowa, ten of these cars being notable for the complete substitution of specially constructed Douglas fir plywood for all matched lumber in a modern steel-frame car. This construction made an unusually attractive car, from the shippers' standpoint, neat in appearance, designed for low ice consumption, easy to keep clean and hence sanitary. The use of plywood reduced the number of individual pieces and joints in the car about 89 per cent; saved a substantial amount of labor in shop fabrication; and reduced the lightweight of the car 3,100 lb.

As shown in the table of general dimensions, each of the ten plywood cars is 40 ft. 7 $\frac{3}{4}$ in. long over the end sills, has a total cubic capacity of 1,999 cu. ft. and a lightweight of 60,600 lb., which compares with an average lightweight of 63,700 lb. for the other 90 cars, made of matched lumber. Other important dimensions are indicated in the table. The steel underframe construction closely follows A. A. R. standards and the superstructure frame, also of steel, is identical with that of a former design, no attempt being made to utilize the full stress value of the plywood. The car is well insulated in the same general way as the earlier design.

The ten plywood refrigerator cars are a development made possible by cooperation between the engineering departments of the General American Transportation

Corporation, the Morrell Refrigerator Line and the Harbor Plywood Corporation, Hoquiam, Wash. The plywood is Douglas fir, manufactured under the patented Super Harbord process, using a cresylic formaldehyde synthetic resin binder, hot pressed, tempered for moisture balance and guaranteed weatherproof. The panel veneers are bonded, or fused, together, with the binder applied to the cross banding, and panels pressed indi-

General Dimensions and Weights of Ten Morrell 40-Ton Plywood Refrigerator Cars

Load-carrying capacity	75,000 lb.
Load limit	75,400 lb.
Lightweight	60,600 lb.
Cubic capacity, total	1,999 cu. ft.
Between floor racks and meat rails	1,800 cu. ft.
Length over end sills	40 ft. 7 $\frac{3}{4}$ in.
Width over side sills	9 ft. 4 $\frac{3}{4}$ in.
Length inside between bunkers	33 ft. 0 $\frac{3}{4}$ in.
Width inside	8 ft. 2 $\frac{1}{2}$ in.
Height inside	7 ft. 4 $\frac{3}{8}$ in.
Width over sheathing	9 ft. 6 $\frac{7}{8}$ in.
Width extreme overall	10 ft. 1 $\frac{5}{8}$ in.
Distance center to center of body bolsters	30 ft. 7 $\frac{3}{4}$ in.
Truck wheel base	5 ft. 6 in.
Height top of rail to center drawbar	2 ft. 10 $\frac{1}{2}$ in.
Height of side door opening	6 ft. 5 in.
Width of side door opening	3 ft. 11 in.
Height top of rail to floor	4 ft. 3 $\frac{11}{16}$ in.
Height top of rail to top of running board	13 ft. 3 $\frac{3}{16}$ in.
Bunker capacity to ceiling	225.3 cu. ft.

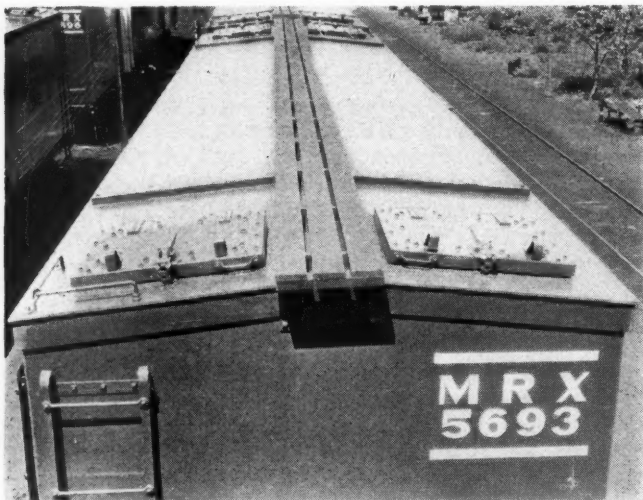
vidually between hot plates filled with live steam. After being cut to specified size, which eliminates job trimming at the car builder's plant, the panels are given a primer

sealer coat of Rezite, applied to both faces and edges by running the panels between heavily coated rolls.

Each separate unit of the car represents individual study and analysis to assure the use of proper plywood thickness and panel construction. In general, panels are applied with the face grain across the short span. Unbacked joints are made with a 1-in. No. 12 gage galvanized spline, except for the top floor panels where a $\frac{1}{4}$ -in. by 1-in. plywood spline is used. These joints are sealed by red oxide and other fillers best suited for the individual units. Drive screws, countersunk below the face of the veneer and puttied, are used in applying panels.

The outside sheathing, or siding, consists of $\frac{1}{2}$ -in. 5-ply panels, with sanded surfaces. Between each end and the side door the side of the car is made of five panels applied vertically with drive screws spaced on 6-in. centers. Each end consists of three vertical panels applied similarly, with drive screws set through the outside layer of plywood and puttied.

The sub-roof is $\frac{5}{16}$ -in. 3-ply plywood, extending in one width from ridge to eave and having butt joints on the carlines without splines. The panels are secured in place by barbed, cement-coated nails, spaced on 6 in. centers. The main roof is made of $\frac{5}{8}$ -in. 5-ply panels,

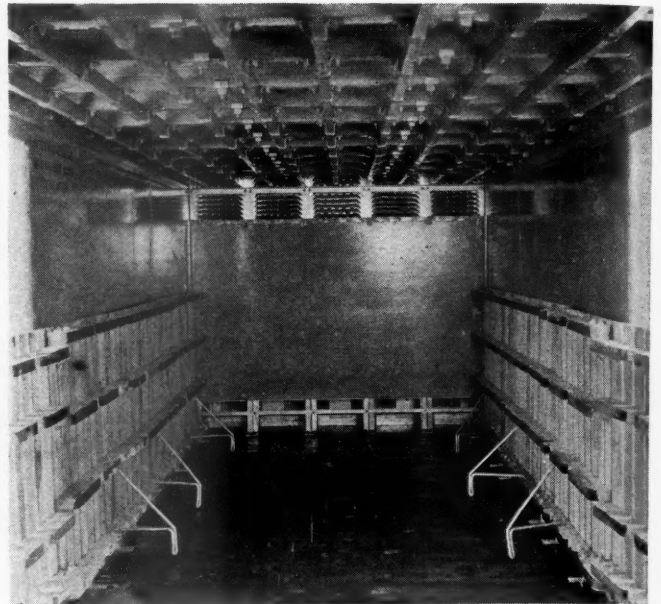


The Plywood Construction of the End and Roof

extending in one length from ridge to eave, and held by drive screws, also spaced 6 in. apart.

The sub-floor is made of $\frac{5}{16}$ -in. 3-ply panels and the main floor of $\frac{7}{8}$ -in. 7-ply panels, the latter extending in one length from side to side, of the car, applied with $\frac{1}{4}$ -in. plywood splines, and secured to the stringers with 3-in. drive screws. Each side lining consists of four sanded $1\frac{1}{16}$ -in. 5-ply panels, applied horizontally with vertical joints on the posts, and each end lining is made of two $\frac{7}{16}$ -in. 5-ply panels, also applied horizontally. The ceiling panels, also $\frac{7}{16}$ -in. 5-ply, sanded, extend in one length from side to side of the car and have joints on the carlines.

The bulkhead aprons comprise two thicknesses of plywood. The front is a one-piece $\frac{3}{4}$ -in. 7-ply panel and the rear a one-piece $\frac{1}{2}$ -in. 5-ply panel. Both panels are secured in the usual manner with drive screws. The doors are constructed of plywood of the same grade and thickness as the siding and lining of the car. As shown in one of the tables, this extensive use of large plywood panels reduces the number of individual pieces and joints from 7 to 20 per cent of those required with matched lum-



The Ice Bunker and Bulkhead—The Raised Floor Racks Show the Plywood Floor

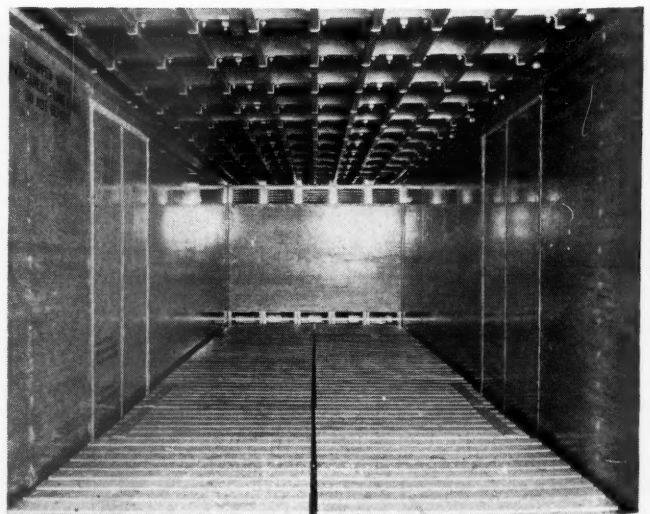
ber construction, thus making a tighter car, and saving both time and labor in application. The average reduc-

Number of Pieces, Screws, Nails, Etc., in Various Units of the Plywood Refrigerator as Compared With a Similar Car Made of Matched Lumber

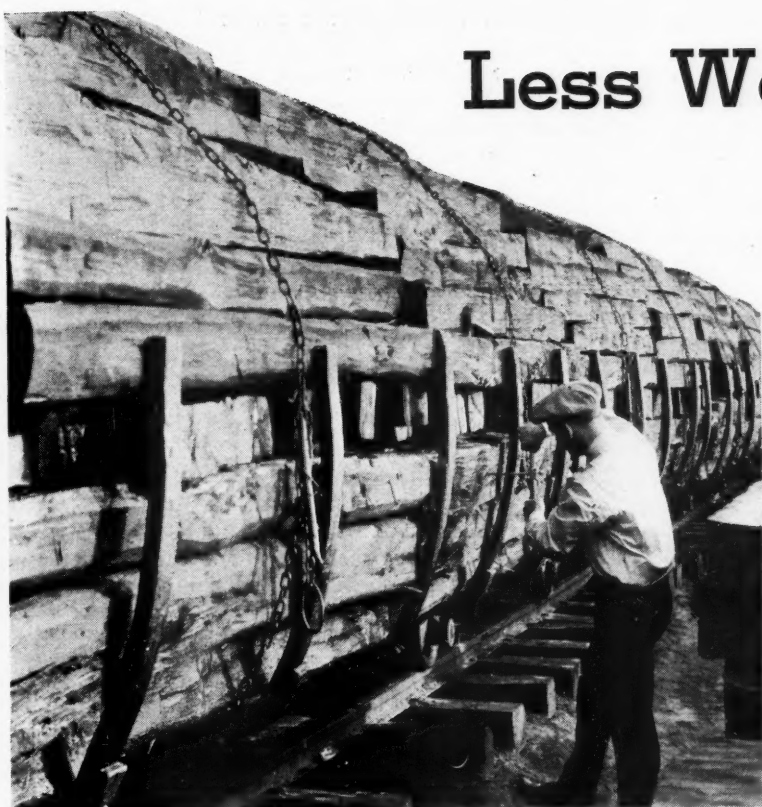
	Plywood car			Lumber car		(a)÷(b) per cent
	(a) Pieces per car	Drive screws	Nails	(b) Pieces per car	Nails	
Siding	32	1234	None	400	3644	8.0
Lining	40	794	None	204	2616	20.0
Bulkhead lining ..	4	184	None	72	304	5.6
Ceiling	18	100	510	114	1472	15.8
Sub-roof	14	None	724	152	1434	9.2
Main roof	26	496	None	374	2028	7.0
Sub-floor	44	None	None	340	None	12.9
Main floor	9	321	None	77	760	11.7

tion in pieces is about 89 per cent and only 3.6 per cent as many holding screws and nails are required.

The car is insulated with Naturzone in the floor and
(Continued on page 142)



A Car Interior Which Is Neat in Appearance and Easy to Keep Clean



Less Wood Treated in 1938

Helphenstine report indicates minor interruption of steady gains that had been progressive since 1934

44,598,678 Ties Were Treated in 1938

REFLECTING the recession in industrial and economic activities which occurred in 1938, progress in wood preservation was retarded slightly in this year after having shown consistent gains from 1934 to 1937, inclusive. During the year, the wood-preserving industry registered a decrease of 8 per cent, compared with 1937, and in contrast with an increase of 20 per cent in 1937 over 1936. Despite this setback, however, the volume of wood given preservative treatment in 1938 was greater than in any year since 1930, except 1937. Decreases were also registered in about half of the various kinds of preservatives used. These data and those that follow are abstracted from statistics compiled by R. K. Helphenstine, Jr., Forest Service, United States Department of Agriculture, in co-operation with the American Wood-Preservers' Association.

As in all previous years since wood preservation became a recognized industry, the railways were the principal consumers of treated timber. Ties constituted more than half of the total timber treated, crossties alone comprising 55 per cent, while crossties and switch ties combined comprised 58.4 per cent of the total volume of wood treated in 1938. Including piling, poles, crossing plank and other timber, the proportion of the total output of treated timber used by the railways exceeded 75 per cent.

The total quantity of wood treated in the United States during 1938 amounted to 244,221,442 cu. ft., a decrease of 21,572,744 cu. ft., or 8 per cent, compared with the 265,794,186 cu. ft. treated in 1937. While this volume was only 67.5 per cent of the total quantity treated in 1929, the peak year for the industry, it has been exceeded only once since 1930, and in only 8 of the 30 consecutive years during which these statistics have been compiled.

For statistical purposes, the report divides treated timber into eight classes, namely, crossties, switch ties,

piles, poles, wood blocks, cross arms, construction timbers and miscellaneous, the latter classification including lumber, fence posts, crossing plank, tie plugs, car material, etc. Every one of these classifications showed decreases.

Wood Preservation, 1909-1938
Together with Consumption of Creosote and Zinc Chloride

Year	Total material treated, cu. ft.	Number of crossties treated	Creosote used, gal.	Zinc Chloride used, lb.*
1909	75,946,419	20,693,012	51,426,212	16,215,107
1910	100,074,144	26,155,677	63,266,271	16,802,532
1911	111,524,563	28,394,140	73,027,335	16,359,797
1912	125,931,056	32,394,336	83,666,490	20,751,711
1913	153,613,088	40,260,416	108,373,359	26,466,803
1914	159,582,639	43,846,987	88,764,050	27,212,259
1915	140,858,963	37,085,585	84,065,005	33,269,604
1916	150,522,982	37,469,368	96,079,844	26,746,577
1917	137,338,586	33,459,470	83,121,556	26,444,689
1918	122,612,890	30,609,209	56,834,248	31,101,111
1919	146,060,994	37,567,927	67,968,839	43,483,134
1920	173,309,505	44,987,532	70,606,419	49,717,929
1921	201,643,228	55,383,515	77,574,032	51,375,360
1922	166,620,347	41,316,474	87,736,071	29,868,639
1923	224,375,468	53,610,175	128,988,237	28,830,817
1924	268,583,235	62,632,710	158,519,810	33,208,675
1925	274,474,539	62,563,911	169,723,077	26,378,658
1926	289,322,079	62,654,538	188,274,743	24,777,020
1927	345,685,804	74,231,840	221,167,895	22,162,718
1928	335,920,379	70,114,405	222,825,927	23,524,340
1929	362,009,047	71,023,103	226,374,227	19,848,813
1930	332,318,577	63,267,107	213,904,421	13,921,894
1931	233,334,302	48,611,164	155,437,247	10,323,443
1932	157,418,589	35,045,483	105,671,264	7,669,126
1933	125,953,828	22,696,565	85,180,709	4,991,792
1934	155,105,723	28,459,587	119,049,604	3,222,721
1935	179,438,970	34,503,147	124,747,743	4,080,887
1936	222,463,994	37,952,129	154,712,999	4,127,886
1937	265,794,186	44,803,239	183,574,581	4,833,935
1938	244,221,442	44,598,678	166,183,891	4,829,590

* Includes chromated zinc chloride.

Of the total timber treated, crossties accounted for 133,796,034 cu. ft., a decrease of 613,683 cu. ft. or 0.4 per cent. Numerically, 44,598,678 ties were treated in 1938, a decrease of 204,561, or 0.4 per cent compared

with 1937. Again, oak ties ranked first in the number given preservative treatment, the number being 20,669,897, or slightly more than 46 per cent of the total. Southern pine maintained second place with 9,476,964 ties, or more than 21 per cent of the total, and Douglas fir ranked third with 4,108,764 or 9 per cent. Other varieties, including gum, maple, ponderosa pine, lodgepole pine, birch, tamarack, beech, hemlock and elm, in the order named, represented 21.8 per cent of the total, while all other woods than those named aggregated only 600,346 ties, or 1.35 per cent of the total.

Creosote Maintains Popularity

Straight creosote, including mixtures of creosote and coal tar, was used as the preservative in the treatment of 26,517,796 ties, or approximately 60 per cent of the total; 16,608,565 ties, or 37 per cent, were treated with mixtures of creosote and petroleum; zinc chloride was used for the treatment of 1,407,271 ties, or 3 per cent; while miscellaneous preservatives were used for the remainder, 0.15 per cent of the total. It will be observed that creosote, either alone or in mixtures with coal tar or petroleum, was chosen as the preservative for approximately 97 per cent of the ties treated during 1938, as was also the case in 1937, the percentage in the latter year being 96, indicating that creosote retains its popularity as a preservative of crossties. All crossties treated in 1938 were subjected to pressure processes.

During the year under review, 31,486,525 or 70.5 per cent of the ties treated, were bored and adzed; 2,701,234 were bored but not adzed; 1,125,381 were adzed without being bored; while 9,285,538, or 21 per cent, were neither adzed nor bored. This latter figure compares with 11,086,324 ties, or 25 per cent, that were not bored or adzed in 1937.

Switch ties, aggregating 105,352,119 ft. b.m., were given preservative treatment in 1938, representing a decrease of 10,025,486 ft. b.m., or 8 per cent below the previous year. Of this total, 59,783,992 ft. b.m., or 57 per cent, were oak; Douglas fir came next with 12,870,339 ft. b.m., or 12 per cent of the total; southern pine ranked third with 11,949,226 ft. b.m., or 11 per cent. Gum accounted for 9,980,174 ft. b.m., or 9.5 per cent; while maple fell to fifth place with 7,834,104 ft. b.m., or 7.5 per cent of the total. The remaining 3 per cent included tamarack, birch, beech, elm, in the order named, and a few miscellaneous species. A total of 70,094,066 ft. b.m., or 66.5 per cent of the total switch ties given preservative treatment were impregnated with

Of this total, 10,813,401 lin. ft., or 85 per cent, were southern pine; 1,496,068 lin. ft., or 12 per cent, were Douglas fir; while oak ranked third with 350,720 lin. ft., or slightly less than 3 per cent of the total. The remainder consisted principally of ponderosa pine, with small amounts of Norway pine and cypress. All piles treated in 1938 were impregnated by pressure processes, and all but 19,162 lin. ft. received treatment with either creosote or creosote mixtures.

Poles decreased by 672,544, or 16 per cent, from 4,217,621 in 1937, to 3,545,077 in 1938. Southern pine accounted for 2,512,585, or 71 per cent of all poles treated; western-red and northern-white cedar came second with a total of 863,575 or 24 per cent, the remainder being Douglas fir, lodgepole pine and chestnut in the order named, with a few scattered species. Full-length pressure treatment was given 2,591,280 poles, or 73 per cent of all poles treated.

The total quantity of miscellaneous materials given preservative treatment in 1938 amounted to 147,319,812 ft. b.m., a decrease of 10,707,586 ft. b.m., or 7 per cent, from the amount treated in 1937. Included in this figure were lumber, 116,640,856 ft. b.m.; fence posts, 14,206,465 ft. b.m.; crossing plank, 807,684 ft. b.m.; and tie plugs, 788,781 ft. b.m.

Corresponding to the decreased volume of wood treated, there was a similar decrease in the consumption of preservatives. The wood-preserving industry consumed a total of 166,183,891 gal. of creosote, a decrease of 17,390,690 gal., or 9.5 per cent, compared with 1937. It is of interest to note, however, that aside from 1937,

Treatment of Miscellaneous Material (Ft. b.m.)

	1938	1937	1936	1935
Lumber	116,640,856	118,258,910	73,694,898	49,705,675
Fence posts	14,206,465	15,985,256	12,266,798	9,564,829
Tie plugs	788,781	870,486	1,238,326	1,332,533
Crossing plank	807,684	1,379,114	1,364,035	290,059
Car lumber	None	137,544	148,332	227,826

this consumption has been exceeded only in each of the six years from 1925 to 1930, inclusive. The consumption of zinc chloride was 3,010,489 lb., and of chromated zinc chloride, 1,819,101 lb., the combined consumption having amounted to 4,829,590 lb., a decrease of 4,345 lb., compared with 1937.

The wood-preserving industry consumed 26,741,677 gal. of petroleum in 1938, or 381,664 gal. more than in 1937. This indicates a continuation of the growing use of creosote-petroleum mixtures, for the consumption in 1938 was greater than for any year except 1929 and 1930, the peak years in wood preservation, of the 15 years that statistics of its consumption have been recorded.

In this year's report, as in 1937, Wolman salts (870,580 lb.) and zinc-meta-arsenite (194,953 lb.) have been segregated from miscellaneous preservatives and are shown separately, leaving 510,429 lb. under this classification. Wolman salts and zinc-meta-arsenite showed decreases of 119,111 lb. and 136,127 lb., respectively, a total of 255,238 lb., while miscellaneous salts gained 179,417 lb. Miscellaneous liquid preservatives increased from 9,936 gal. in 1937 to 19,486 gal. in 1938, or approximately double.

In 1938, there were 230 treating plants in the United States, an increase of 11, compared with 1937. Of these, 221 were in active operation, an increase of 12, and 9 were idle. Eight new plants were completed during the year, of which 7 were placed in operation; 5 of these were pressure plants and 2 were non-pressure. Six plants were abandoned during the year, 1 pressure and 5 non-pressure. Of the total plants in existence, 181 were

Classes of Material Treated in 1938

Class of Material	Cu. ft.	Per cent of total
Crossties	133,796,034	54.8
Switch ties	8,779,343	3.6
Piles	8,624,151	3.5
Poles	62,393,355	25.5
Wood blocks	2,368,790	1.0
Construction timbers	15,628,080	6.5
Cross arms	355,038	0.1
Miscellaneous	12,276,651	5.0
Total	244,221,442	100.0

creosote, and 28,050,408 ft. b.m., or 26.5 per cent, were treated with creosote-petroleum mixtures, while zinc chloride was used as the preservative for 7,071,187 ft. b.m., or 6.7 per cent. Miscellaneous preservatives accounted for a negligible amount of switch timber. All but 42,971 ft. b.m. was treated by pressure processes.

Piles decreased 4,945,959 lin. ft., or 28 per cent, from 17,697,920 lin. ft. in 1937, to 12,751,961 lin. ft. in 1938.

commercial plants that treat wood for sale or by contract; 23 were owned by the railways, the same number as in the previous year; and 26, or 3 less than in 1937, were owned by public utilities, mining companies, etc., to supply their own needs for treated wood.

It is of interest to note that during the last 16 years, since 1922, the number of treating plants operated by the railways has decreased from 32 to 23. This is an indication that the railways are finding it of advantage to rely more and more on commercial plants to supply their needs for treated wood, rather than to operate their own plants.

Railroad Construction Indices for 1938

WASHINGTON, D. C.

THE Engineering Section of the Interstate Commerce Commission's Bureau of Valuation has issued its Railroad Construction Indices for 1938, showing that last year the cost of railroad-building was off slightly as compared with 1937. Based as usual on the 1910-1914 costs as 100, the 1938 index for the country as a whole was 149—down four points from 1937's

REGIONS I to VIII, Inclusive

Tabulation of Indices by Years and by Accounts Applicable to the Entire United States

		ROAD																										
Acct.	*Per Cent	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938			
1	2.83	101	110	134	159	178	214	175	157	171	171	166	166	164	161	160	152	143	131	127	131	131	133	142	138			
3	18.19	100	110	130	165	190	250	170	143	160	164	149	153	143	135	133	123	118	106	98	100	101	99	103	93			
4																												
5	1.51	103	109	128	150	183	208	179	165	179	179	179	178	169	155	155	143	130	119	111	122	120	130	139	141			
6	9.41	105	111	146	162	178	206	165	160	176	173	171	170	168	164	163	150	134	122	122	136	135	141	155	150			
7	0.04	102	124	169	177	184	210	150	153	173	171	168	165	163	163	162	154	144	129	122	136	136	137	158	150			
8	5.58	100	100	112	133	170	201	189	157	177	175	172	173	175	176	175	170	155	144	139	149	147	150	159	154			
9	8.57	101	106	121	148	152	168	158	144	145	144	144	144	144	144	144	144	144	140	134	123	123	124	143	139			
10	3.39	99	129	198	210	203	209	192	161	182	179	177	177	177	177	170	169	165	163	158	150	147	150	169	169			
11	4.09	103	107	114	140	150	207	191	176	175	175	174	175	176	176	176	168	159	146	146	141	139	140	143	143			
12	4.35	100	100	130	163	175	218	174	165	188	188	188	188	188	188	188	182	175	164	157	159	165	165	169	167			
13	0.51	100	122	142	178	194	204	189	177	179	179	176	175	175	175	173	171	164	147	135	140	140	138	143	144			
14	0.08	103	108	119	165	199	280	197	194	212	200	201	201	204	204	204	198	188	125	126	140	140	140	155	155			
15	1.18	104	108	137	161	182	208	171	164	178	175	171	169	166	165	165	161	153	131	127	139	137	139	152	145			
16	4.42	101	115	135	154	185	215	192	180	194	193	188	184	189	188	187	182	165	141	145	151	151	157	166	166			
17	0.51	100	115	136	156	185	216	192	178	196	196	189	187	192	191	190	186	166	140	145	150	150	150	162	162			
18	0.82	101	120	159	170	191	213	185	178	187	187	186	182	185	186	184	177	161	147	151	155	155	156	166	166			
19	0.26	101	120	153	160	190	212	181	166	185	185	182	180	183	183	183	174	159	144	149	154	154	153	159	159			
20	2.16	102	118	141	159	188	216	191	180	193	192	188	185	189	188	187	176	161	137	142	147	147	155	165	165			
21	0.09	100	110	128	150	185	214	190	184	197	197	193	190	195	193	193	182	165	137	142	147	147	156	164	164			
22	0.04	100	115	135	155	185	210	193	178	198	198	193	189	193	191	191	184	165	137	142	147	147	154	166	166			
23	0.53	100	114	133	152	178	204	167	158	175	175	174	177	178	178	178	172	158	136	141	146	146	149	153	153			
24	0.44	101	117	145	155	184	204	170	159	176	176	174	174	176	176	176	172	157	136	142	147	147	151	153	153			
25	0.01	108	122	148	175	194	213	194	176	188	189	186	185	188	189	189	178	163	145	148	176	176	178	178	177			
26	0.34	103	124	147	158	164	192	191	162	187	179	163	157	163	165	165	150	138	121	119	124	128	131	135	129			
27	1.49	94	106	132	152	165	175	163	158	165	164	162	169	158	155	154	147	138	130	130	133	136	138	143	143			
28	0.01																						151	149	149			
29	0.14	104	122	141	158	189	218	197	184	196	196	191	186	191	191	189	177	162	138	143	148	148	152	167	167			
30	0.01	101	117	137	156	187	218	194	180	197	197	192	188	193	191	190	176	161	137	142	147	147	138	164	164			
31	0.03	115	166	190	181	186	176	145	132	142	136	140	141	137	142	150	136	116	98	98	103	105	108	123	110			
32	0.51	109	148	178	192	189	205	172	163	178	172	175	176	175	178	181	173	148	144	144	148	151	152	155	149			
33	0.06	106	116	145	169	194	230	208	179	209	203	185	183	198	199	209	200	172	147	147	150	153	148	157	152			
34	0.01	101	110	119	172	206	250	228	214	220	215	220	216	219	219	217	215	175	175	175	180	184	185	185	185			
35	0.04	101	117	137	156	186	217	192	179	195	195	190	186	191	190	189	182	164	141	146	151	151	154	161	161			
36	0.03	104	124	153	177	205	217	191	190	191	191	190	190	190	190	190	181	156	150	145	145	145	145	150	150			
37	0.08	105	113	127	146	158	170	162	149	151	151	151	151	151	149	148	147	144	138	138	147	147	147	161	153			
38	0.05	100	100	179	179	184	202	181	170	173	185	190	190	190	190	190	160	155	155	150	150	150	160	170	180			
44	0.95	115	126	155	192	200	210	198	173	183	185	185	186	187	189	191	176	166	155	155	179	179	179	198	200			
45	0.26	115	126	155	192	200	210	198	173	183	185	185	186	187	189	191	176	166	155	155	179	179	193	206	199			
46	0.07	115	126	155	192	200	210	198	173	183	185	185	186	187	189	191	176	166	155	155	155	150	145	149	151			
Wtd. Ave. 1-46	73.09	101	110	134	159	178	214	175	157	171	171	166	166	164	161	160	152	143	131	127	131	131	133	142	138			

		EQUIPMENT																									
Acct.	*Per Cent	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938		
51	5.42	86	102	145	189	202	248	192	179	197	185	171	191	190	179	188	194	184	168	166	176	188	188	204	204		
52	0.10	100	117	137	184	184	197	197	196	198	199	192	194	202	203	221	221	210	175	165	185	190	190	200	199		
53	11.22	101	148	183	243	267	284	184	156	200	179	171	163	178	169	185	181	161	144	144	165	177	179	191	190		
54	2.14	89	104	132	164	197	213	169	152	192	187	183	189	191	180	183	181	178	161	161	173	182	182	195	195		
55	0.02	89	104	132	164	197	213	169	152	192	187	183	189	191	180	183	181	178	161	161	173	182	182	195	195		
56	0.48	107	125	164	227	245	239	200	175	170	170	170	170	170	170	170	165	158	148	148	158	160	160	171	171		
57	0.56	96	128	165	225	244	263	193	168	203	183	188	180	192	184	195	191	178	165	165	177	180	180	197	197		
58	...	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
Wtd. Ave. 51-58	19.94	96	130	166	219	240	265	185	163	198	182	173	174	183	174	186	185	170	153	153	169	180	181	195	194		

153, but still up 16 points from the 1933 post-war low of 133. The peak was reached in 1920 when the index hit 226.

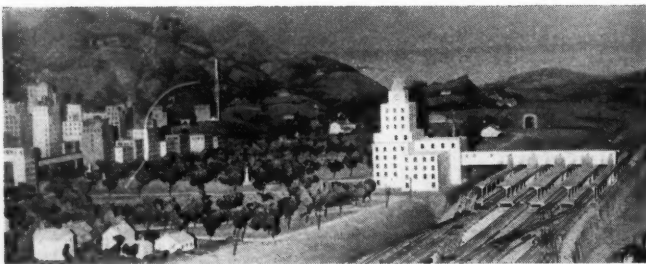
As the accompanying notice from I. C. C. Secretary W. P. Bartel explained, the indices "are not based on price lists but on the cost experience of the railroads themselves, reports covering which are filed with the Bureau of Valuation and field checked." Also, the Bureau's compilation carries the usual notation to the effect that the indices, which summarize and record the results of studies made by the Engineering Section over a period of years, "have not been examined or passed on" by the commission. Furthermore, the compilation's "General Notes" point out that the indices "represent territorial index factors and are of value in indicating trends. They are not necessarily applicable for use in the determination of reproduction costs upon individual railroads. . . ." The general indices for the country as a whole (given in the accompanying tabulation) are broken down in the Bureau's compilation into eight regional sets.

In his notice I. C. C. Secretary Bartel called attention to the fact that the 1938 country-wide indices for steam locomotives and passenger-train cars—204 and 195, respectively—remained unchanged from 1937; while the index from freight-train cars dropped one point, from 191 to 190. The most pronounced dip was in the index for grading, off 10 points from 1937's 103 to 93 for last year. In this connection Secretary Bartel observed that "high costs accelerated the shift from manual to mechanical means—from men, horses and scrapers to modern machinery, such as excavating, hauling and dumping machines," which "also greatly solidify new roadbed and reduce the period of seasoning for railroad traffic."

The accounts for which the indices are shown are the several primary accounts designated in the Classification of Investment in Road and Equipment of Steam Roads. These accounts, shown by their numbers in the tabulation, are as follows:

I—ROAD	
1. Engineering	25. Gas Producing Plants
3. Grading	26. Telegraph and Telephone Lines
4. Underground Power Tubes	27. Signals and Interlockers
5. Tunnels and Subways	28. Power Dams, Canals, and Pipe Lines
6. Bridges, Trestles, and Culverts	29. Power Plant Buildings
7. Elevated Structures	30. Power Substation Buildings
8. Ties	31. Power Transmission Systems
9. Rails	32. Power Distribution Systems
10. Other Track Material	33. Power Line Poles and Fixtures
11. Ballast	34. Underground Conduits
12. Tracklaying and Surfacing	35. Miscellaneous Structures
13. Right of Way Fences	36. Paving
14. Snow and Sand Fences and Snowsheds	37. Roadway Machines
15. Crossings and Signs	38. Roadway Small Tools
16. Station and Office Buildings	39. Assessments for Public Improvements
17. Roadway Buildings	40. Revenues and Operating Expenses During Construction
18. Water Stations	41. Cost of Road Purchased
19. Fuel Stations	42. Reconstruction of Road Purchased
20. Shops and Engine Houses	43. Other Expenditures—Road
21. Grain Elevators	44. Shop Machinery
22. Storage Warehouses	45. Power Plant Machinery
23. Wharves and Docks	
24. Coal and Ore Wharves	

* * *



Union City, Metropolis of the Eastern Railroads' Model Lay-Out at New York World's Fair, Showing Main Passenger Station

- | | |
|--|-----------------------------|
| 46. Power Substation Apparatus | 57. Work Equipment |
| 47. Unapplied Construction Material and Supplies | 58. Miscellaneous Equipment |

II—EQUIPMENT

51. Steam Locomotives
52. Other Locomotives
53. Freight-Train Cars
54. Passenger-Train Cars
55. Motor Equipment of Cars
56. Floating Equipment

III—GENERAL EXPENDITURES

71. Organization Expenses
72. General Officers and Clerks
73. Law
74. Stationery and Printing
75. Taxes
76. Interest During Construction
77. Other Expenditures—General

Ten Morrell Refrigerators Made of Douglas Fir Plywood

(Continued from page 138)

a combination of Dry Zero and lightweight Hairinsul between the steel frame members and Insulite board in the side and end walls. The ceiling is insulated with Haircraft. Owing to the relatively air-tight plywood construction, no insulation paper is used in these cars.

The hatch plugs are integral with the covers, have a bottom covering of 5/8-in. plywood and forged hinges, rubber gasket and locking device furnished by the Holland Company. Floor racks are 1-in. by 4-in. oak slats, applied on 1 3/4-in. by 3 3/4-in. oak stringers, hinged and equipped with forged holders. Running boards are 1 1/8-in. by 5 3/4-in. fir securely screwed to saddles of the same material.

All parts of the trucks, except the wheels and axles, are given one coat of red iron oxide and one coat of Mortex emulsified asphalt paint. The entire surface of the underframe, including the inside of the center sill and steel superstructure frame are given one coat of red iron oxide and one coat of Mortex emulsified asphalt paint. All joints where metal laps on metal and also the insides of the bolsters are given a coat of red lead before assembly.

The outer car sides are painted with three coats of yellow Carhide, the last coat being an enamel. The outside of ends and roofs are given second and third coats of red oxide. Lining, ceiling, bulkhead aprons and meat rails are given three coats of varnish. Kardex sealers are applied under the threshold, hatch-casing flange, hinge butts and hatch-cover bumper blocks. The plywood spline joints are painted as follows: Floor, white Mortite; lining and ceiling, casein glue; side sheathing, yellow primer; end sheathing and top roof, red iron oxide.

Partial List of Equipment and Materials on Ten Morrell Refrigerator Cars

Douglas fir plywood, Super Harbord.	Harbor Plywood Corporation, Hoquiam, Wash.
Wheels, one-wear wrought steel.	Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Axles, 5-in. by 9-in. journals.	Standard Forgings Corp., Chicago
Trucks, Type B	National Malleable and Steel Castings Co., Cleveland, Ohio
Brake beams	American Steel Foundries, Chicago
Truck springs	American Locomotive Co., Railway Steel Spring Div., New York
Snubber springs; draft gear, NY-11-E.	Cardwell Westinghouse Co., Chicago
Couplers	McConway & Torley Corp., Pittsburgh, Pa.
Uncoupling device	Union Metal Products Co., Chicago
Bottom brake connections	Schaefer Body, Inc., Cleveland, Ohio
Air brakes	Westinghouse Air Brake Co., Wilmerding, Pa.
Hand brakes	Equipment Mfg. Div., of Union Asbestos & Rubber Co., Chicago
Insulation:	
Naturzone and Haircraft	Wilson Packing Company, Chicago
Hairinsul	American Hair & Felt Co., Chicago
Dry Zero	Dry Zero Corp., Chicago
Insulite	The Insulite Co., Chicago
Bulkheads, ice grates, well traps.	Equipment Mfg. Div. of Union Asbestos & Rubber Co., Chicago
Door locking device	W. H. Miner, Inc., Chicago
Bunker netting	Consolidated Expanded Metal Co's, Chicago
Hatch closure—CAP-KO	Holland Company, Chicago
Paint, Mortex	J. W. Mortell Co., Chicago
Resite primer sealer	I. F. Laucks, Inc., Seattle, Wash.

Presidents Discuss Motor Transport

Widespread activities characterize rail-highway field in 1938



IN their annual reports for 1938 the presidents of many of the American railroads included references to extensions of railroad-owned motor bus and truck lines and the use of motor vehicles in terminal interchange and in pick-up and delivery services. The following are high-light excerpts from statements to stockholders and the statistical tables that customarily follow them.

President E. W. Scheer of the Reading told stockholders that at the close of the year the Reading Transportation Company was conducting motor bus operations over 614 route-miles, a decrease of seven miles from the previous year. During 1938, 1,406,322 bus miles were operated and 916,902 passengers transported. Motor truck route-miles, on the other hand, were increased by 31 miles to a total of 953 miles, through extensions of routes to New Philadelphia, Pa., and Shenandoah. During 1938, 891,196 truck miles were operated and 60,506 tons of freight handled. Of the latter 11,207 tons, equivalent to 577 carloads, were carried in truck-rail-truck service, producing revenues of \$32,237 for the Reading Company. At the end of the year the road continued to hold all the 600,000 shares of stock of the transportation company.

The report of the New York Central indicated that at the close of the year the road held 100,000 shares of a total of 200,000 outstanding of no par stock of Central Greyhound Lines. The Central's holdings are assigned a ledger value of \$39,416.

The report of J. L. Hees, trustee of the Fonda, Johnstown & Gloversville, showed that passenger revenues on its bus lines (including urban and intercity routes) totaled \$201,478 in 1938, an increase of \$36,141 over the previous year. Revenue passengers carried were 2,507,485, an increase of 40,404 over 1937. The electric division, operating interurban and urban electric railway lines, was discontinued June 28 and the net book investment, aggregating \$5,662,072, written off in closing the books for the year. The cost of substituting motor buses for the discontinued railway lines was paid out of the salvage of the electric properties. Twelve buses were purchased during the year, bringing the company's fleet at the close of the year to a total of 39 buses.

The statistical table of securities owned by the Penn-

sylvania railroad company as of December 31, 1938, indicated that the company held 17,282 shares of common and 1,500 shares of preferred stock of Pennsylvania Truck Lines, Inc., from which preferred stock the road received an income of \$9,000 during the year.

Many Operations in New England

President W. F. Cram of the Bangor & Aroostook reported bus services operated by the subsidiary Bangor & Aroostook Transportation Company were extended during the year and that "its operations resulted in substantial benefit to your railroad."

E. S. French, president of the Maine Central, stated that the Maine Central Transportation Company, by permission of the Interstate Commerce Commission, acquired during the year a bus route between Lewiston, Me., and the Canadian line at Beecher Falls, Vt., via Bethel, Me., and Rumford, Berlin, N. H., and Colebrook, formerly operated by Maine-New Hampshire Stages, and a line of the Portland-Conway Stages between Portland, Me., and Fryeburg and between Conway, N. H., and Jackson. He declared that operation of these lines "results in further co-ordination of rail and bus operations and improved service to the public." He also pointed out that additional service between Dennysville, Me., and Eastport was inaugurated during the year, permitting a saving in time to patrons. According to the report, a reduction in intrastate passenger fares on the principal bus lines was made effective October 24 and in interstate passenger fares on November 25 in order to meet competitive conditions. To this, together with a wage increase, Mr. French attributed the sharp reduction in net income. The amount contributed by the subsidiary to the Maine Central railroad income for the year was \$47,746 as compared with \$37,355 in the previous year.

President H. S. Palmer of the New York, New Haven & Hartford told stockholders that operations of the New England Transportation Company for the year 1938 resulted in a net income of \$48,535, an improvement of \$103,334 over the year 1937 which yielded a net deficit of \$54,800. This net income included depreciation charges of \$184,998 and also \$79,110 covering accrual

of note interest not paid to or included in the income account of the New Haven. He further reported that the transportation company and the Greyhound Corporation have entered into an agreement contemplating the merger of certain bus operations, which was summarized in the *Railway Age* of March 25, 1939, page 527.

Separate income accounts appearing for various highway operating subsidiaries reveal that the Soundview Transportation Company, wholly-owned subsidiary of the New York, Westchester & Boston, itself 99.6 per cent owned by the New Haven, showed a net income of \$120, as compared with a net deficit of \$3,819 during 1937. The County Transportation Company, another wholly-owned bus subsidiary, reported a net income of \$11,294, an increase of \$160 as compared with net income of \$11,134 for 1937. A separate income account for the New England Transportation Company, showed, in addition to the net income reported above, that its affiliate had total operating revenues, including passenger, freight and other, of \$2,765,664 and total operating expenses including depreciation and retirements of \$2,616,952. Operating revenues decreased \$379,523 as compared with the previous year while operating expenses decreased \$494,906. The New Haven continued to hold the entire capital stock of the company, having a par and book value of \$1,500,000 and notes to the amount of \$1,318,500.

Buses and Trucks in the South

The report of the Central of Georgia showed that the road had increased loans and advances to the Central of Georgia Motor Transport Company by \$2,687. The road continued to hold the entire \$5,000 common stock issue of its subsidiary. A similar table for the Richmond, Fredericksburg & Potomac showed that that road had holdings in Richmond-Greyhound Lines, Inc., to the extent of \$98,000 par value and \$105,000 book value and had made advances of \$156,800.

The report of the Gulf, Mobile & Northern indicated that the road continued to hold stocks of the Gulf Transport Company having a par value of \$9,700. The investment list of the Louisville & Nashville showed that the road continued to hold stock of the Gulf Transit Company having a par value of \$8,230 and a book value of \$82,300.

The list of securities owned by the Illinois Central indicated that the road continued to hold the entire 50 shares of outstanding stock of the Central Transportation Company of Illinois and all of the 200 shares of the Mississippi Valley Transportation Company, Inc., as of the close of the year.

M. S. Hawkins and L. H. Windholz, receivers of the Norfolk Southern, stated in their annual report that the Norfolk Southern Bus Corporation, a wholly-owned subsidiary, operated during the year 1,432,374 bus-miles and carried 732,665 passengers, with a gross revenue of \$320,775. Net income for the year amounted to \$25,996 as compared with \$25,668 in 1937.

Southwestern Lines Use Co-Ordination

President Daniel Upthegrove of the St. Louis Southwestern reported that the Southwestern Transportation Company, a wholly-owned highway subsidiary, operated 95 motor trucks (including 41 tractor-trucks) and 43 trailers at the close of the year and hauled 69,826 tons of merchandise during the year. A separate account appearing for the Southwestern Transportation Company showed operating revenues during the year of \$713,163 and operating expenses of \$635,235, leaving a

net revenue of \$77,928, a net operating income of \$2,677 and a net income of \$61,929.

G. A. Thompson, trustee for the Missouri Pacific, reported that during the year the Missouri Pacific Transportation Company reduced total operated mileage from 4,948 miles at the beginning of the year to 4,178 at the close, a net decrease of 770 miles, through discontinuance and rearrangements of various bus routes. Involved in the discontinuance were routes between Lebanon, Mo., and Springfield, 55 miles; Marshall, Mo., and Boonville, 33 miles; Herington, Kan., and Eads, Colo., 347 miles; Topeka, Kan., and Lyndon, 31 miles; Melbourne, Ark., and Calico Rock, 21 miles; Crossett, Ark., and Bastrop, La., 27 miles; Union, Nebr., and Lincoln, 56 miles; Angleton, Tex., and Freeport, 17 miles; Natchez, Miss., and New Orleans, La., 186 miles. The railroad continued to hold 1,000 shares of the highway subsidiary's stock at \$100 par value per share and it had made advances to the company totaling \$5,585,577 up to December 31, 1938. Assets of the transport company include a note for \$2,877,971 receivable from the Missouri Improvement Company, a wholly-owned subsidiary of the parent railroad.

The road organized the Missouri Pacific Freight Transport Company during the year, pursuant to authority of the court, for the purpose of conducting co-ordinated highway transportation service in conjunction with the Gulf Coast Lines and the International-Great Northern in Texas. Capital stock having a par value of \$25,000 was subscribed and paid for by the Missouri Pacific trustee. He was authorized to advance to the transportation company a sum not to exceed \$125,000 for highway operations along the International-Great Northern. As trustee of the New Orleans, Texas & Mexico he was further authorized to advance a sum not to exceed \$100,000 for co-ordinated trucking service along the Gulf Coast Lines in Texas. These operations are under contracts safeguarding the rights and equities of the various debtors' estates. No part of these advancements had been made as of December 31, 1938. It is further reported that certificates to operate over certain routes have already been approved.

The report of the St. Louis-San Francisco, presented by J. M. Kurn and J. G. Lonsdale, trustees, stated that the Frisco Transportation Company, organized in 1937 for the purpose of operating co-ordinated and auxiliary motor truck and bus service between stations on the lines of the railroad, inaugurated bus service between Springfield, Mo., and Seneca on June 17, 1938, which service was extended on November 7 to Afton, Okla., thereby enabling considerable savings to be effected by the discontinuance of local mixed train rail service between these points. Trucking operations between Carthage, Mo., and Miami, Okla., and southbound between Hugo, Okla., and Paris, Tex., were authorized on November 30 and have been inaugurated, providing co-ordinated rail and highway service "for more expeditious and economical handling of merchandise traffic."

Harvey C. Couch, chairman of the Kansas City Southern, noted that the Interstate Commerce Commission, in November, 1938, authorized, with a number of restrictions, the Kansas City Southern Transport Company, a wholly-owned subsidiary organized in 1937, to conduct motor vehicle operations generally between points served by the company, with the qualification that such motor vehicle services are to be auxiliary to rail service. "It is expected that such co-ordinated rail and motor vehicle service will not only afford considerable improvement over existing rail service with respect to less-than-carload traffic, but will also result in a substantial saving annually in operating costs." The report

pointed out that the transport company owns no equipment or real property, but is organized to contract for the collection, transportation and delivery of less-carload freight. It is controlled by the railroad through ownership of the entire capital stock issue of 50 shares having a total face amount of \$5,000. A separate income account for the transport company indicated operating revenues during the year of \$6,870 and operating expenses of \$6,174, leaving a net revenue of \$695 and a net income of \$435.

Highway Use in the West and North

S. J. Hungerford, president of the Canadian National, reported that the company commenced operation of its own cartage service at Montreal, Que., St. Hyacinthe and Brantford, Ont., Guelph and London on February 1, 1938, which services were previously operated by outside contractors. "This change has been well received by the shipping public and has resulted in economies."

According to the list of investments of the Canadian Pacific, that railroad owned the entire capital stock issue of the Canadian Pacific Transport Company, Ltd., having a par value of \$50,000.

S. T. Bledsoe, late president of the Atchison, Topeka & Santa Fe, stated in his report to stockholders that during the Southern California flood of February, 1938, when traffic on the company's lines in Cajon Pass between San Bernardino and Victorville was interrupted for eight days, passengers were transported into and out of Los Angeles by buses and automobiles provided by the company. According to the statistical tables in the annual report, the company owned at the close of the year 89,769 out of a total of 90,000 shares outstanding of capital stock of the Santa Fe Trail Transportation Company. Total investment in the Trail Transportation Company charged to the capital account was reported as \$1,178,903. Since the date the road has acquired 43 additional shares. The company owned the entire outstanding capital stock of the Santa Fe Transportation Company (California), having a book value of \$11,000 and the entire outstanding stock of the Santa Fe Transportation Company (Delaware), having a book value of \$1,000. Further it was noted that a total of \$2,260,788 has been advanced to the Santa Fe Trail Transportation Company, \$844,626 to the Santa Fe Transportation Company (California), and \$16,500 to the Santa Fe Transportation Company (Delaware), as of the close of the year.

The report of the Union Pacific revealed that Interstate Transit Lines, 79.9 per cent owned by the railroad, which operate highway motor coaches in Union Pacific and Chicago & North Western territory between Chicago and Los Angeles, Cal., and Union Pacific Stages, Inc., a wholly-owned subsidiary operating between Salt Lake City, Utah, and Portland, Ore., together ordered fourteen 37-passenger streamlined motor coaches for delivery early in 1939 and air-conditioned 140 additional motor coaches during the year. A motor coach depot was also constructed at Boise, Idaho. Interstate Transit Lines and controlled companies earned net revenue of \$1,021,878 during the year, as compared with \$907,083 in 1937 and had a surplus at the close of the year of \$332,273. Union Pacific Stages earned net revenue of \$319,625 during the year, as compared with \$355,051 during 1937, and had a surplus as of December 31 of \$7,782. The Union Pacific received and credited to its income account \$368,321 from Interstate Transit Lines in dividends, an increase of \$44,872 over dividends received in 1937.

According to the list of affiliated companies of the

road, it continued to hold directly, as of December 31, 1938, 186,965 out of a total of 263,829 shares of capital stock of Interstate Transit Lines; the entire 30 outstanding shares of Union Pacific Stage and the entire 6,500 outstanding shares of Union Pacific Stages, Inc.

Wilson McCarthy and Henry Swan, trustees for the Denver & Rio Grande Western, stated that a comprehensive study was made by the road during the year of the traffic, revenues and expenses of light traffic branch lines to determine, among other things, the reduction in expenses possible through substitution of bus or truck service either in full or in part or outright abandonment of the branches. According to the income account of the road, it received no dividend earnings from motor operations during the year, whereas it received \$21,262 in 1937. The list of pledged securities of the road as of December 1, 1938, showed \$56,700 par value stocks of the Denver Colorado Springs Pueblo Motor Way, and \$156,400 par value stocks of the Rio Grande Motor Way.

The list of investments in affiliated companies by the Northern Pacific showed that the road continued to own stock in the Northern Pacific Transport Company to the extent of \$1,000 book value. As of December 31 the road had advanced \$331,500 to the transport company. The securities account of the Northwestern Improvement Company, wholly-owned subsidiary of the road, showed possession of \$116,488 in joint notes of the Yellowstone Park Transportation Company.

President Ralph Budd of the Chicago, Burlington & Quincy reported that the Burlington Transportation Company, wholly-owned affiliate of the road, suffered a net operating loss in bus operations of \$257,837 during 1938, compared with a net loss in 1937 of \$280,139. Operating revenues in 1938 were \$116,336 less than in the previous year and expenses were \$153,525 less. Mr. Budd attributed this continued unfavorable showing almost entirely to the fact that a decision of the Interstate Commerce Commission denying application for the proposed merger with the Union Pacific's Interstate Transit Lines was not received until after the 1938 tourist season had opened. As the sale of substantially all the property and franchise of the Burlington Transportation Company to the Union Pacific affiliate was pending before the Commission, no steps had been taken to acquire new equipment; hence operations were conducted at a serious competitive handicap. The company has since purchased 21 Cruiser-type, Diesel-powered, air-conditioned motor coaches.

The Truck division earned a net profit of \$26,089 during the year, compared with a net profit in 1937 of \$9,570. Final payment of \$107,500 for the acquisition of the Merchants Cartage Company was made during the year. The Sand Motor Express Company, operating between St. Louis, Mo., and Davenport, Iowa, was acquired on August 1, 1938, and its routes merged with the present operating system of the Burlington Transportation Company. Twenty-three new units of equipment were acquired and placed in service during the year.

Mileage statistics for the company during the year record 10,100,000 bus-miles over 6,445 route-miles and 3,400,000 truck-miles over 2,585 route-miles, as compared with 10,500,000 bus-miles over a total of 6,442 route-miles in 1937 and approximately 2,500,000 truck-miles over a total of 1,797 route-miles.

Southern Pacific Continues Work

The annual report of the Southern Pacific disclosed in detail the activities of a number of directly-owned and affiliated motor transport organizations and listed the
(Continued on page 149)



General View of Yard Showing How the Flood-Lighting Illuminates the Switches and Retarders at Night

Pennsylvania Installs Retarders in Yard at Harrisburg, Pa.

Classifications expedited in central terminal which receives traffic from western points and sorts cars for 26 delivery points on the Atlantic seaboard

THE Pennsylvania has entirely reconstructed its eastbound gravity classification unit at Enola yard, on the south side of the Susquehanna river opposite Harrisburg, Pa., and has installed car retarders. These improvements were made to utilize to better advantage the space available for yard tracks and to facilitate operations, and thereby insure closer connections for through cars. As a result of these improvements, a speed of about 2 m. p. h. is maintained over the hump, with about 4 cars passing each minute. With the hump in operation about 45 min. of each hour, and with an average of 1.4 cars per cut, about 1,200 cars can now be classified in 8 hr. In one instance, a train of 110 cars was classified in 23 min.

Importance of This Yard

Enola yard is the neck of the bottle for eastbound freight traffic on the entire Pennsylvania system. Traffic moving eastbound from Buffalo, N. Y., Erie, Pa., Cleveland, Ohio, Detroit, Mich., Chicago, St. Louis, Mo., Indianapolis, Ind., Cincinnati, Ohio, and Hagerstown, Md., converges in this yard. Likewise, east of Enola, lines diverge to Baltimore, Md., Washington, D. C.,

Philadelphia, Pa., Trenton, N. J., and New York. Thirty-three eastward classifications are made, including six for different yards in Philadelphia, one for Camden, five for New York, two for Washington, and three for Baltimore. About 30 per cent of the traffic consists of loaded coal cars, the remainder being perishables, meats, agricultural products, lumber and merchandise. One stock train is received daily.

The rush of yard work comes between 2 p. m. and 5 a. m., trains arriving at 30-min. intervals during the late afternoon and evening. All of these cars must be classified and made up in trains for departure shortly after midnight to give early morning delivery at terminals on the eastern seaboard. When arriving trains are on time, the closest connection is 1 hr. 30 min., but if some of the trains are late, these classifications must be rushed to get the departing trains out on time. In such instances, the increased operating capacity afforded by the new yard layout is of decided assistance.

Changes in Track Layout

The yard lies in a general north and south direction, with the hump at the north end. Under the previous

arrangement, two separate leads extended over the hump to separate ladder tracks, in effect forming two yards, with 21 tracks in the preference freight yard on the east side and 9 tracks in the slow-freight yard on the west. Two additional tracks between the two yards were used by motor cars hauling car riders back to the hump. The two separate yards were provided to permit simultaneous classification of preference and slow freight, although this arrangement was not entirely satisfactory because there were some cars going over each hump which were destined to the other yard, and had to be brought back up the hump and sent down the other lead to the track used for that classification. Therefore, one of the major objectives of the track changes was to arrange all of the yard tracks so that they could be served from one lead down the hump. Also, the two motor car tracks were converted to yard tracks, thus giving a total of 33 yard tracks. Six more tracks, located west of the hump yard tracks, are set aside for trains which require few, if any, changes in consist as they pass through this terminal.

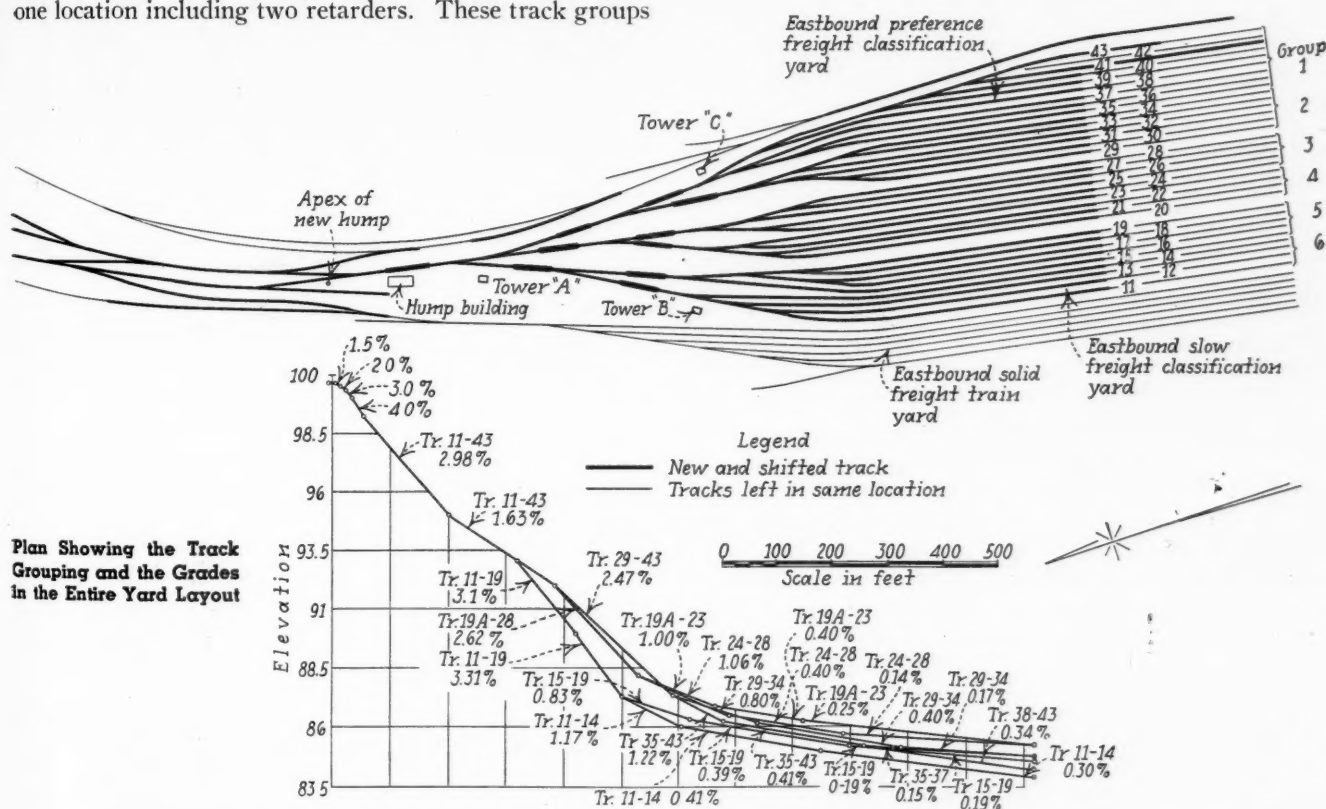
Track Grouping

Since the installation of retarders is not practicable in a ladder track layout because it requires retarders in each yard track in addition to those on the main leads, the ladder track arrangement was rearranged to provide a series of six-track groups, each of which is served by one location including two retarders. These track groups

the switches for the three secondary leads, as well as those leading to the separate groups, as close as possible to the hump, so that cars going to different groups would diverge quickly, thus making it possible to reduce the space between cuts going down the hump.

In the old layout, the yard tracks proper were on a grade of about 0.5 per cent. To enable a car of maximum weight, under the most favorable conditions, to keep moving but not accelerate materially, the grade of the yard tracks was reduced to 0.25 per cent in the 24 tracks used for preference freight, and to 0.22 per cent in the slow-freight tracks. These grades are such that a 100-ton car that leaves the last retarder at 3 m. p. h. will reduce speed to about 2 m. p. h. while passing through the switches and turnouts, and then continues to the far end of the track without acceleration. In order to make these changes in grades, the upper end of the yard, including the switches leading to the yard tracks, was lowered about 6.5 ft., while the departure end of the yard was raised about 4.5 ft.

The apex of the new hump is located about 100 ft. north and 50 ft. west of the apex of the previous hump of the preference freight yard. Starting with 10 ft. of level track at the apex of the hump, the grade then descends for 10 ft. at the rate of $1\frac{1}{2}$ per cent, then for 10 ft. at 2 per cent, 10 ft. at 3 per cent and for 20 ft.



are, in turn, connected in pairs, and each of these secondary leads is served by two retarders. These three leads are connected to the one main lead down the hump, on which two retarders are used. Thus the entire layout of 33 tracks is served by 10 retarder locations and a total of 20 retarders.

When locating the switches, care was taken to allow adequate trackage for the retarders and also to provide clearance between tracks opposite retarders and turnouts so that there would be no possibility of cars in a retarder being "cornered," i. e., struck by cars moving on an adjacent track. Another consideration was to locate

at 4 per cent, followed by 145 ft. of 2.98 per cent. These grades were selected to accelerate a car quickly and thereby increase the spacing between cuts of cars and provide a time interval sufficient to enable the switches to be operated between following cuts of cars. Between the base of the hump and the clearance points on the various yard tracks, the grades vary on the several leads, depending on the curvature and lengths of track involved in each route, the purpose being to effect the same acceleration in all routes. These grades were selected as the result of studies made in other yards where retarders are in service, consideration being given to the

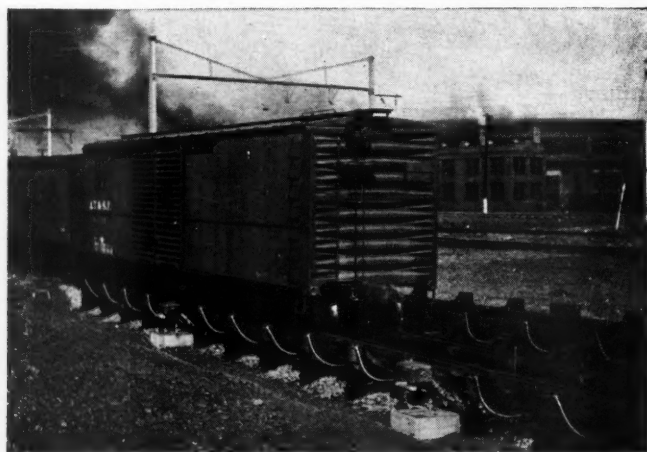
variations in weights of cars to be handled at Enola. As the maintenance of these grades is essential for proper operation, permanent grade stakes were set and the grades are checked periodically.

Although comparatively few empty cars are classified in this yard, the grades are adequate to handle them. On the assumption that some of the coal cars are loaded to 100 tons, the retarders were installed to provide retardation on both rails for a total track length of 240 ft. on every route.

Changes in Leads from Receiving Yard

Because the hump was moved 100 ft. north, it was necessary to revise the grade of the tracks in the receiving yard for varying distances up to 700 ft., the ascending grade of these tracks being about 0.8 per cent for 575 ft. Also as a part of the improvement, the layout at the hump end of the 14 tracks was entirely revised to converge the tracks in groups extending to two major leads to the hump, with crossovers as shown in the layout. With this arrangement, a string of cars can be pushed up to the hump on one lead and be ready for humping as soon as a train on the other lead is classified. The crossovers in this layout are power-operated and interlocked to prevent the setting up of conflicting routes. New underneath and side inspection pits, one for each lead, were constructed, which permit the inspection of all parts of cars as they move slowly toward the apex of the hump.

In the earlier arrangement, the yard switches were operated by direct-acting electro-pneumatic switch ma-



Each Retarder Layout Is Made Up of a Certain Number of Complete Cylinder Unit Mechanisms

chines, which were controlled by a push-button type machine in a tower at the hump. The switch machines were reinstalled at the switches in the new layout. These switches, as well as the retarders, are controlled by new desk-type machines in three towers. Tower A controls the crossover and switches in the leads from the receiving yard, as well as five yard switches and the retarders at four locations in the main and secondary leads down the hump, enabling the man in this tower to route a car to any one of the six different groups of yard tracks; this man also controls the retarders in his area. Tower B controls the retarders at 3 locations and the 9 switches leading to the 13 separate tracks in 3 groups. Tower C controls the retarders at 3 locations and 13 switches leading to separate tracks in the 3 remaining groups. A power-operated skate-placing machine is located at least one car length beyond the clearance point on the turn-

out of each yard track, these skates being controlled by the operators in Towers B and C in the respective areas. These skates are for emergency use in the event a car emerges from the last retarder at too high speed.

Control of Humping Operation

The movements of locomotives for pushing cars up to the hump are directed by two sets of color-light signals, one for each of the two main leads from the receiving yard. The main signal of each set is located at the hump, and repeater signals are located at several points in the receiving yard so that an engineman at any location can see one or more signals. Owing to the few points at which poles could be erected, the repeater signals are mounted back to back, thus displaying aspects in both directions as a further assistance to the enginemen.



Printing Telegraph Machine in the Yardmaster's Office

Each set of signals is controlled by a lever in a separate stand, the two stands being located near the hump; they are operated by the conductor in charge of the humping operation. A green aspect instructs the hump engine to move a block of cars up to the hump promptly; after the cars are moving over the hump, a green aspect means to increase speed. A yellow aspect means to maintain normal humping speed of 2 m. p. h.; red indicates stop; and flashing red indicates back up. During foggy or stormy weather, the signals are supplemented by a system of electro-pneumatic horns spaced along the pusher tracks. These horns are controlled by a button in the humpmaster's office. One blast means to stop, two means to come ahead at normal speed, three means to back up, and four means to start a new train.

Handling of Switching Lists

When a train arrives in the receiving yard, the waybills are delivered to the yardmaster's office at the hump, where a clerk arranges them as to the destination of the cars, special care being given diversion orders. The switching list is then typed on a printing telegraph transmitter, which not only makes several typed copies of the list, but also transmits the list to a receiving machine in each of the three control towers, where it is printed in sheet form.

Except for the headings giving the date and time of arrival, etc., the list is all printed in figures, which elim-

inates the necessity of shifting from figures to letters on the keyboard of the transmitting machine. One line of the list is devoted to each car. The first column shows the figures 1, 2, etc., giving the sequence of cars in the block as they are to be pushed over the hump. The second column gives the number of the car. The third column indicates the relative amount of retardation to be required, based on the weight of the car; Fig. 1 indicates an empty car, and Fig. 2, 3 and 4 represent increased weights, 4 representing a heavily loaded car. A copy of the list, taken from the transmitting machine, is delivered to the conductor at the hump, who directs the movement of the hump engine. Other copies are retained for record.

As a means of directing and co-ordinating yard operations, a loud-speaker telephone system was installed, with transmitters and loud-speakers in the yardmaster's office, in each of the three towers, and at the conductor's location. A second transmitter in the yardmaster's office is connected to loud-speakers near the lower end of the yard tracks, this system being used by the yardmaster to direct the work of the yard ground crew. These men establish the head end of the trains by stopping a car at the proper location by means of a skate. As the cars come together on the yard tracks, they usually couple up automatically, and a part of the work of this ground crew is to connect the air hose, special hooks being used to avoid the necessity for the men going between the cars. The capacities of the various yard tracks range from 50 to 83 cars.

Results Obtained by New Layout

As the tower operators and other employees became familiar with the new system of operation, the speed of classification gradually increased, and the number of errors in classification as well as the damage to lading and cars decreased in the proportion of about 8 to 1. During the first 15 days of May a total of 33,704 cars were classified, the daily average being 2,247. The peak performance was on January 29, when 1,290 cars were classified in 8 hours, and 3,138 cars in 24 hours. The peak month was March, when 73,008 cars were handled.

The installation described in this article was made according to plans developed by the Pennsylvania. The Union Switch & Signal Company furnished and installed the power switch machines, car retarders, signals and control apparatus.

Presidents Discuss Motor Transport

(Continued from page 145)

widespread interest of the company in such operations. Wholly-owned motor companies operated 119 buses over 425 miles of route in Los Angeles, Calif., and vicinity and 33 miles in San Jose, Calif., and vicinity. Wholly-owned trucking and transport companies, operating both highway truck and city drayage services and performing store-door pick-up and delivery at various points along the Southern Pacific railroad lines, operated 196 motor trucks, 134 trailers, 63 commercial tractors and one bus, as of the close of the year, over 8,328 miles of highway truck routes and 12 miles of bus routes; and performed drayage services in 66 cities along Southern Pacific lines. In addition to these highway companies proper, wholly-owned electric railway properties in California operated 127 buses over 206 miles of route and used an additional 83 buses in joint operation of 120 miles of bus route. According to Chairman Hale Holden's state-

ment to stockholders, "Service by these companies is being further extended as conditions warrant."

Several of the wholly-owned motor transport companies which perform pick-up and delivery services for the railroad and motor truck service by highway and local drayage were afforded separate income accounts in the report. The Pacific Motor Trucking Company, operating 5,487 miles of truck routes, and 12 miles of bus routes, enjoyed operating revenues of \$1,056,294 during the year, as compared with \$1,063,371 in 1937. The Peoples Freight Line, operating 333 miles of truck route, and acquired by the Pacific Motor Trucking Company on December 31, 1937, earned operating revenues of \$36,486 during the year. The Southern Pacific Transport Company, operating 1,388 miles of truck routes, took in \$373,417 in operating revenues during the year (after deducting \$877,430 representing contract payments to rail carriers) as compared with \$409,578 in operating revenues in 1937. The Southern Pacific Transport Company of Louisiana, Inc., running over 720 truck route-miles, had operating revenues, after contract payments, of \$75,766 during 1938, compared with \$100,297 in 1937. The Motor Transit Company, operating 425 miles of bus routes, had operating revenues during 1938 of \$754,725, compared with \$745,672 in 1937.

The Pacific Motor Transport Company discontinued operation of store-door pick-up and delivery services during the year with the approval of state regulatory bodies. The Southern Pacific and its affiliated companies assumed direct operation of store-door services previously provided by the motor transport company, effective January 1, 1938, in Oregon and Arizona, March 1, in Nevada and August 1 in California. Store-door pick-up and delivery service at stations in Texas and Louisiana is now provided by the Southern Pacific Transport Company, operating in Texas, and the Southern Pacific Transport Company of Louisiana.

During 1938 a co-ordinated over-the-highway freight service was provided by the Pacific Motor Trucking Company, operating in Oregon, California, Nevada and Arizona; the Peoples Freight Line, operating in Arizona and California; the Southern Pacific Transport Company, operating in Texas, and the Southern Pacific Transport Company of Louisiana. At the close of the year operations of these subsidiaries, both with owned equipment and in contractual arrangements with independent motor truck operators, extended over 8,328 miles of highway. Applications are now pending before various regulatory bodies for authority to extend operations. These include an application filed by the Pacific Motor Trucking Company for authority to purchase the Pacific Truck Express, operating extensively in Oregon and California. On April 1, 1939, under authority of the Interstate Commerce Commission, operations of the Peoples Freight Line were merged with those of the Pacific Motor Trucking Company, following dissolution of the former on March 31, 1939.

The report also discussed operations of motor bus companies affiliated with the Southern Pacific. In this connection it was pointed out that the railroad, at the end of the year, held 35.87 stock ownership in the Pacific Greyhound Lines, which owns 515 motor buses operating over 9,209 miles of routes extending from Portland, Ore., south through San Francisco, Cal., Los Angeles, and San Diego to El Paso, Tex., and from San Francisco east to Salt Lake City, Utah, and from Los Angeles east to Albuquerque, N. M. The company, at the close of the year, had a 5.65 per cent stock ownership in the Southwestern Greyhound Lines and an additional 9.62 per cent through the St. Louis Southwestern, 87.32 per cent of whose outstanding capital stock is owned by the

Southern Pacific Company. The Southwestern Greyhound Lines, at the end of the year, operated 203 buses over 6,644 miles of routes in the territory east of Denver, Col., Albuquerque, extending to Kansas City, Mo., and St. Louis and south to Lake Charles, La. The report went on to say that while both of these services are operated independently, in certain instances co-ordination of the motor bus schedules with the steam train service of the rail lines has been effected to the benefit of both, and further co-ordination is being developed when and where conditions warrant.

In discussing the operations of the Northwestern Pacific, a wholly-owned railroad subsidiary, it was recorded that as a result of flood conditions in the early part of 1938, through train service on the company's main line was interrupted for a period of 73 days, from February 2 to April 15, during which time passengers, baggage, mail, express and less-carload freight were carried between Willits, Calif., and Eureka by motor buses and trucks. Further, it was reported that on December 22, an application was filed with the California Railroad Commission to discontinue operation of passenger ferries between San Francisco, Cal., and Sausalito and to substitute a connecting bus and truck service for passengers, mail and express to connect with through main line passenger trains.

A Monumental Cost Analysis Job in Cal.

A LEARNED and comprehensive essay—stupendous even—into cost analysis issued recently from the California Railroad Commission. The study is remarkable above all similar efforts, among other things, for its reiterated acknowledgment of the practical limitations of this approach to rate-making. No critical estimate of this work is here attempted—solely a glimpse at the content of a job which no one who has any interest in cost analysis for rate-making purposes

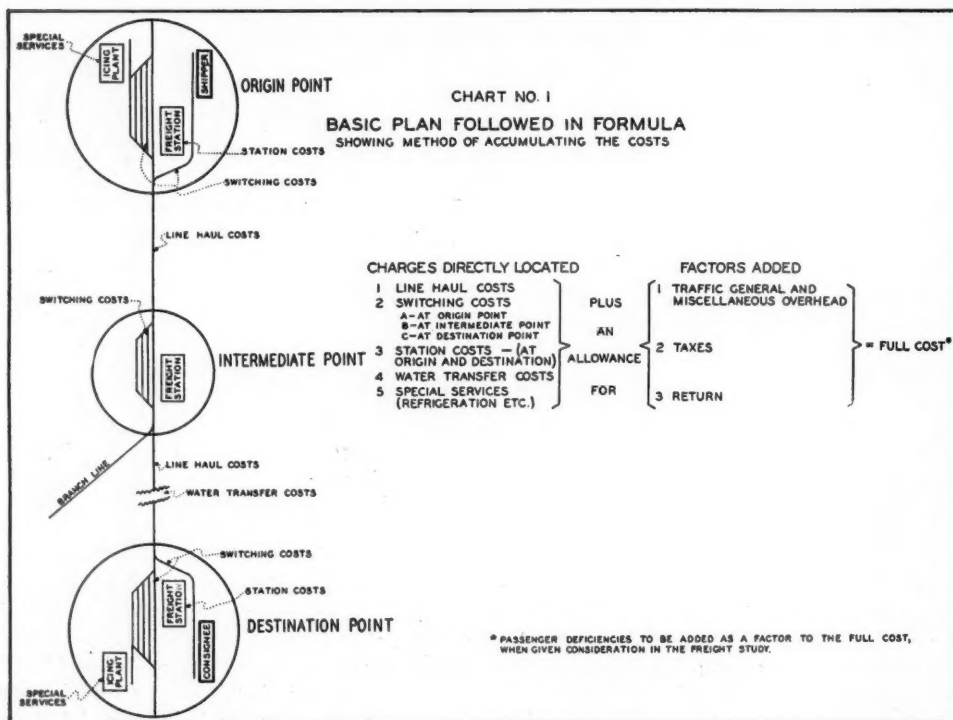
will care to miss, and from the complexities of which any other might flee flabbergasted.

The main body of the work, entitled "Study of Rail Cost Finding for Rate-Making Purposes, Case No. 4402" has as its author Dr. Ford K. Edwards, the California Commission's transportation economist, and forms, with many charts and tables, a multigraphed volume of 356 pages. There is a supplementary descriptive analysis, entitled "Railroad Freight Operations in California" by Norman A. Wood, engineer for the Commission, consisting of 126 multigraphed pages. Then there is the detailed "Formula for the Determination of Freight Service Costs" itself—of 34 large sheets. And finally, for good measure, there are railroad maps in color, neatly pouched at the rear of the documents authored by Messrs. Edwards and Wood. The study was made under direction of J. G. Hunter, assistant director of transportation and chief engineer of the Commission, who reports in turn to Warren K. Brown, director of transportation.

Again and again in his report, Dr. Edwards reiterates the point of view (expressed first in his letter of transmittal) as follows: "While the proper derivation of cost for rate-making purposes is important, it is no more important than is the intelligent use of such data when once derived. It is only by coincidence if any freight today is moving at its exact cost of transportation, however accurately one might compute it. The reason is, of course, that cost is not the only factor in rate-making. Furthermore, there exists not one but several levels of cost . . ."

The usefulness of a cost study in rate-making, Dr. Edwards points out, is largely dependent upon the confidence which the rate-making body can place in its accuracy; and this confidence "depends not a little upon the facility with which the study can be fathomed and probed." Cost studies presented before the I. C. C., he continues, have had a high casualty rate precisely because of the impossibility of dissecting them. Dr. Edwards endeavors to avoid this mantrap by shedding as much light as possible on the methods he employs

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The Basic Plan of Dr. Edwards' Plan for Allocating Costs

Hale Holden Retires

Headquarters of directors and executive committee of Southern Pacific moved from New York to San Francisco



Hale Holden

HALE HOLDEN, chairman of the Southern Pacific, with headquarters at New York, has retired under the pension rules of the company after 32 years continuous railroad service. Coincident with this action the board of directors, at a meeting on July 13, discontinued the office of chairman and transferred the duties and authority of that office to A. D. McDonald, president, who, subject to the board of directors and the executive committee, will have general control of the company's activities, with headquarters in San Francisco. Coincident also with Mr. Holden's retirement, the headquarters of the board of directors and of the executive committee were moved from New York to San Francisco, the center of the railroad's Pacific Coast operations.

At the same time four new directors were selected from San Francisco and Los Angeles—Allen L. Chickering, senior partner of the law firm of Chickering & Gregory, San Francisco; James B. Black, president of the Pacific Gas & Electric Company, San Francisco; Stuart L. Rawlings, retired mining engineer and a director of various industrial and utility corporations, San Francisco; and V. H. Rossetti, president of the Farmers & Merchants National Bank, Los Angeles. They succeed Mr. Holden, George E. Roosevelt, Deering Howe and W. F. Bull. The members of the former executive committee, Malcolm P. Aldrich, Cleveland E. Dodge, Walter Douglas, Edward S. Harkness, William DeForest Manice and Jackson E. Reynolds, resigned as members of the committee but will continue to serve as directors. The four newly-elected directors, together with C. E. Perkins of Santa Barbara and Mr. McDonald, were elected to constitute the new executive committee.

The offices of Ben C. Dey, general counsel, and W. F. Bull, secretary, will also be transferred from New York to San Francisco. In order to facilitate the handling of certain corporate financial work, the payment of interest on bonds and the transfer of stock, the offices of John G. Walsh, vice-president in charge of finances; F. Van Note, controller, and J. A. Simpson, treasurer,

will be continued in New York. All other officers will continue in their present positions at their present headquarters.

Mr. Holden has directed the activities of the Southern Pacific Company for more than ten years, having been made chairman on January 1, 1929. In this capacity he has directed the policies of the Southern Pacific Company-Pacific Lines, the Southern Pacific Lines in Texas and Louisiana, the Southern Pacific Railroad Company of Mexico, and affiliated companies, during the most difficult decade in railway history and has served also, since the acquisition of control of the St. Louis-Southwestern in 1932, as chairman of the board of that company. During this period the ton-miles of revenue freight of the Southern Pacific Lines and subsidiaries declined from 16½ billion in 1929 to 8¼ billion in 1933 and rose to 16⅓ billion in 1937, declining again to 13.7 billion in 1938. During the same period total railway operating revenues dropped from \$310,969,138 in 1929 to \$129,860,962 in 1933 and then rose gradually until in 1937 they amounted to \$225,016,912, from which level they declined to \$200,070,814 last year.

Net railway operating income in these years declined from \$59,741,860 in 1929, to \$9,057,074 in 1933, and then rose to \$22,616,281 in 1937, and again declined to \$14,297,003 in 1938. During this period total railway operating expenses were reduced from \$219,698,403 in 1929, to \$102,374,151 in 1933, and increased to \$173,912,676 in 1937 and \$157,246,669 in 1938. In 1929 the company had a net income of \$47,434,930; in 1933 a net deficit of \$4,990,931, in 1937 a net income of \$756,793 and in 1938 a net deficit of \$6,829,008. The drastic reduction in expenses which was made in 1933 and the recovery which has been made since that year reflect in no small way the leadership and wisdom of the policies of the company during this difficult period.

Mr. Holden was born in Kansas City, Mo., on August 11, 1869, and graduated from Williams College in 1890 and from Harvard Law School in 1893. He immediately began the practice of law in Kansas City and for a

number of years was a member of the law firm of Warner, Dean, McLeod & Holden, local attorneys for the Chicago, Burlington & Quincy. In July, 1907, he was appointed general attorney of this road, with headquarters at Chicago. During the three years that he served in that capacity he represented the railroads in some of the most important cases heard by the Interstate Commerce Commission, including the Missouri River rate case and the Pacific Coast lumber rate case. He likewise participated in the Minnesota rate case, one of the most important railroad cases ever passed upon by the Supreme Court of the United States, involving both the question of railroad valuation and that of the authority of the United States government to nullify state regulation that interfered with interstate commerce. The ability with which Mr. Holden represented the Hill lines in this litigation made such an impression upon James J. Hill that he was made assistant to the president of the Burlington in January, 1910, and in November, 1912, was elected vice-president and a director. Two years later, in August, 1914, he was elected president of the Burlington and the Colorado & Southern.

In August, 1916, when the railroads were threatened with a nation-wide strike in their "basic 8-hour day" controversy with their train service employees, Mr. Holden was chosen to preside over the conferences held by the railway presidents in Washington and to serve as chairman of the committee of executives who presented the position of the railroads to President Wilson. When the country entered the World War in the spring of 1917 and the railroads organized the Railroads' War Board to unify their operations as a single system, Mr. Holden was selected as one of the five members of this board. Upon the adoption of government operation at the beginning of 1918, he was invited by Director-General McAdoo to take charge of the operating organization of the Railroad Administration but declined. In June, 1918, he resigned as president of the Burlington to become regional director of the Central Western region of the Railroad Administration, which position he held until February 15, 1920, when he resumed his position as chief executive of the Burlington System. From December, 1922, to December, 1924, he was also chairman of the executive committee of the Association of Railway Executives. On January 1, 1929, he was elected chairman of the Southern Pacific.

A Monumental Cost Analysis Job in Cal.

(Continued from page 150)

"even to the extent of presenting alternative concepts, methods and practices" which he himself does not adopt.

A general idea of the method employed is conveyed in the accompanying chart. Dr. Edwards acknowledges his debt to the work of the I. C. C. in this field (and particularly to Arthur White of the Bureau of Statistics) but his effort departs from the I. C. C.'s excursions into this domain in several important particulars. His discussion of the paradox of a company in financial difficulties when cost studies indicate that its rates are substantially above ascertained "costs" has some suggestive ideas in it. One is that some of the overhead costs commonly assigned to "by-products" are not properly so charged, and ought to be transferred to commodities which can "bear" them. For one thing, he maintains that it is "more or less standard practice" to assign to passenger traffic "a proportion of the common

expenses and a proportion of the total investment which is almost hopelessly beyond the ability of the passenger traffic to support."

Dismissing "average" costs as being of little value in rate-making (because of adverse court decisions which recognize the fact that very little traffic is "average"), the study proceeds to explore the requirements for a satisfactory costing procedure. Here is the author's list of desiderata:

"It is desirable that the study be of a uniform pattern; it should yield consistent results regardless of by whom employed; it should be built as far as possible upon cost and statistical data which are currently available; and it should be sufficiently sensitive to reflect significant variations in operating conditions. The arithmetic processes followed should be self-evident and capable of ready verification. As far as possible, the cost study should start with the whole costs and work downward to the particular costs to insure that no items of expense have been ignored or overlooked. Finally the method should be as simple, as brief, and as understandable as is consistent with the above requirements."

Whether the learned doctor's detailed formula meets those specifications or not is a question which is hereby left to the judgment of the reader with the time and the curiosity to examine it in the original—the space to elucidate the method employed cannot be vouchsafed here.

But, besides developing a cost formula meant for practical application, the study sheds light on many perplexing problems which have arisen from the advent of competition in transportation. Just for instance, take a look at the following (and it is only a foot-note):

"On short hauls the truck carriers may constitute the rate-making agency. If the rail lines meet the rates it must be on an out-of-pocket basis. On the long hauls the reverse is true with the rails constituting the rate-making agency, and the trucks meeting their rates on an out-of-pocket basis. The broad observation may here be made that while this competitive feature of rate-making is the accepted practice and can be justified from the standpoint of the individual carrier, yet, when practiced by all carriers, it becomes a source of economic waste, for each agency of transportation, in effect, relinquishes some of its most profitable traffic, i. e., that which it can handle at a relatively low cost, in exchange for traffic which to it, at least, is much less profitable. The obvious result of such a 'trade' is that everyone loses, for the total cost of moving all traffic is greater than if each agency had remained in the field for which it is best fitted. The final result is either a reduced return to the agencies of transportation, or an increase in rates to the public, or both."

The average railroader, if your reporter is any judge, would come away from a hour or two spent with this stimulating volume a considerably smarter fellow than when he waded in. This also goes for most railroaders who are above the average (again, that is, in the opinion of your operative).

And, moreover, this is true even if you don't agree with any of Dr. Ford's conclusions. You don't have to agree with a bright and learned man to derive benefit from his lucubrations.

EMPLOYEES IN ALL CLASSES of service on the French National Railway must average seven hours of labor per day during the summer period and seven hours 10 minutes per day from October 15 to May 15, according to a decree recently issued by the government in connection with the establishment of a 45-hour week generally in industry.

House Gets Transport Bill

WASHINGTON, D. C.

THE House committee on interstate and foreign commerce on July 18 reported favorably the general transportation bill which it is sponsoring as a substitute for S.2009, the Senate-approved Wheeler-Truman "key bill." As reported by the full committee the measure embodied some changes from the sub-committee version outlined in the *Railway Age* of July 15, page 115—notably the additional exemption for contract water carriers of inflammable and combustible liquid cargoes in bulk.

Among other changes made by the full committee was the amendment relating to the applicability of the act to operations of the Railway Express Agency and the writing in of provisions of H.R.5726 which would relieve the shipper of liability for freight charges when railroads fail to collect from consignees to whom shipments are reconsigned on a freight-charges-collect basis. The amendment relating to the Express Agency is designed to leave the situation no broader than it now is with respect to express operations regulated under Part I of the act. Also, the bill contains a provision directing the Interstate Commerce Commission to expedite its pending investigation of the need for federal regulation of the sizes and weights of motor vehicles, and to report thereon to Congress at the "earliest practical date."

Prospects for Final Enactment

Completion of Congressional action on this general transport legislation at the present session is contingent upon how long the session continues for the consideration of other matters more apt to induce the adjournment-minded legislators to remain in Washington. In this connection the abandonment of the Administration's hope for neutrality legislation at this session has brought forth predictions of adjournment within the next two weeks, since the only remaining Administration measure of major importance is the pending legislation to carry out President Roosevelt's lending-spending program. Even prior to the definite decision to postpone neutrality legislation Congressional leaders, including Chairman Wheeler of the Senate committee on interstate commerce, were talking about concluding the present session with transport legislation advanced only to the conference stage from which it could be pushed through to final enactment at the next session. While there is a general feeling in Washington that such will be the outcome, the railroads and railroad labor leaders are still hoping for final enactment at this time. Several petitions from railroad labor leaders urging prompt action were received by the House this week.

As reported by the House committee the bill takes the form of an amendment to S.2009, and the retention of that Senate number will expedite its advancement to the conference stage after action by the House. In the latter connection on the day the bill was reported Chairman Lea of the committee on interstate and foreign commerce introduced a resolution asking for a rule for consideration of the measure; and, as this issue went to press, House leaders were understood to have agreed upon a plan for taking up the bill on Friday.

The committee on interstate and foreign commerce's majority report was accompanied by a separate expression of minority views of Representatives South, Demo-

crat of Texas, and Wadsworth, Republican of New York. These two dissenters contended, among other things, that there is no public need nor demand for the proposed extension of government regulation of water transportation; that the effect would be "to deny the freedom of the inland waterways to the commerce of the United States. . ."; and that both management and labor in the railway field "are chasing a rainbow in their hope that this bill will bring them prosperity." In support of their position Messrs. South and Wadsworth quoted from letters received by Chairman Lea from Secretary of War Woodring and Chairman Land of the United States Maritime Commission, and the more recent one written by Secretary of Agriculture Wallace to Speaker Bankhead.

Wallace Opposes Bill

The latter was inserted in the July 17 issue of the Congressional Record by Representative Warren, Democrat of North Carolina, leader of the House bloc organized to oppose regulation of water carriers by the I. C. C. Mr. Wallace believes that "maintenance of controls now exercised over railroad rates is justified by economic considerations," but he has "grave doubts that identical rate regulation is required of the rail competitors." If it be true that water carriers are subsidized, he adds, "the logic of the situation suggests making changes in our promotional policies with respect to transportation, and not adding uneconomic rate regulation to uneconomic transport subsidy." Later on the Secretary of Agriculture disclaims any desire to minimize the difficulties in the way of a solution of the transportation problem; but he submits "that the proposal to extend minimum rate regulation to water carriers, with the very real danger of advancing one more step toward the formation of a transportation cartel with restricted transportation services and a rate level sufficient to pay a return upon all sunk capital, whether or not it is needed by the public, does not promise a solution of these problems in the public interest."

Mr. Wallace also addresses himself to proposals to repeal land-grant rates, advocating that any relief for railroads in that connection be made contingent upon return to the government of granted lands still in the possession of the carriers. Because of the limited time available, Mr. Wallace said in closing, his report had not been cleared by the Budget Bureau in accordance with the usual routine. "However," he added, "the subject matter of the report is in harmony with the comments already submitted in connection with the several bills under consideration. In these cases the Director of the Bureau of the Budget advised that no objection was made to the submission of the several reports, with the understanding that no commitments would thereby be made with respect to the relationship of the proposed legislation to the program of the President."

U. S. Chamber Supports Bill

Meanwhile support for the House bill came from the Chamber of Commerce of the United States in the form of a statement issued by its president—W. Gibson Carey, Jr. "The features of this proposed legislation," said Mr. Carey, "are in the main consistent with the Chamber's position on transportation." Specifically he listed the following features of both Senate and House bills which the Chamber supports: Elimination of statutory obstacles to railroad consolidation; regulation of minimum as well as maximum rail-water rates; shortening of the time limits on reparation and undercharge claims;

broadening of I. C. C. authority to reorganize its internal set-up; extension of I. C. C. regulation to rates and services of common and contract water carriers in domestic commerce "with appropriate exemptions for bulk carriers on the Great Lakes and other contract carriers non-competitive with common carriers." In addition the Chamber supports the House bill's provisions for elimination of land-grant rates and for relief for railroads in connection with the cost of rebuilding bridges required to be altered in connection with waterway improvements. In the former connection, as noted in last week's issue, the land-grant repeal would be contingent on the relinquishment by railroads of land claims now in litigation. The provisions for relief in connection with bridge reconstruction were not in the Senate bill, but a separate Senate measure with similar provisions was passed in the upper body this week. The Chamber, Mr. Carey also said, prefers the House bill's form to the Senate's codification idea, "the membership having gone on record in favor of separate provisions for each form of transportation so as to facilitate adoption of provisions for each form suited to its characteristics."

Liberal Exemptions for Bulk Carriers

The above-mentioned majority report of the House committee embodies much of the statement issued by Chairman Lea on July 8 when the sub-committee completed its work on the bill. In addition it presents some general observations on the history, purpose and need for the legislation and a sectional analysis of the House bill. As indicated above the exemption for contract operators of tank vessels is in addition to the exemptions for other bulk carriers on the waterways noted in last week's issue. The majority report's discussion of these exemptions comments on the liberality of the general one whereby contract water carriers, not specifically excluded, may apply to the I. C. C. for exemption on the basis of a showing that they do not compete with common carriers because of the "inherent nature of the commodities transported, their requirement of special equipment, or their shipment in bulk."

"This provision," says the report, "is more liberal than the similar provision in the Senate bill in that it provides that an application made prior to October 1, 1939, by a carrier in operation on June 1, 1939, shall exempt the carrier until a final determination of the application. This gives the carrier an opportunity to escape from being brought under regulation at all if he is entitled to the exemption."

"Under the Senate bill the carrier would be brought under regulation and then would have to prove his right to be relieved from it."

Among other provisions of the bill, in addition to those mentioned in last week's issue, are the amendments to section 16 of Part I which reduce from three years to two years the period within which actions at law by carriers subject to Part I may be begun for the recovery of their charges and making the same change with respect to actions by shippers against carriers for recovery of overcharges. No change is made in the present two-year period of limitation for the filing of complaints by shippers against carriers for recovery of damages not based on overcharges.

The only change in the fourth section is the repeal of that provision whereby a railroad, having obtained relief to meet water competition, is thereafter precluded from raising the rate involved unless the Interstate Commerce Commission finds that the proposed increase rests upon changed conditions other than the elimination of water competition.

New Books...

Old Euston. 70 pages. 9¾ in. by 7½ in. Bound in cloth. Published by Country Life, Ltd., London, England, for the London Midland & Scottish. Price 7s. 6d net. (\$1.80).

To mark the centenary of the London & Birmingham and Euston, its London terminus, last year, the London Midland & Scottish (Great Britain) commissioned its assistant secretary, G. Royde Smith, to produce this volume from his wide knowledge of early railways and their archives. Written informally and with an eye to the humorous and anecdotal, the work is excellently illustrated with fine reproductions of early sketches and paintings of the famous old station and its much-discussed Doric portico arch. Casual allusions to the men and events of the century under discussion evidence the solid learning of the author. The English generally do this sort of thing well, but Mr. Smith stands out even in that land of businessmen-scholars.

Trains, Tracks and Travel, by T. W. Van Metre. 341 pages. 9½ in. by 6½ in. Bound in cloth. Published by Simmons-Boardman Publishing Corporation, New York. Price \$3.50.

This, the fifth edition of Professor Van Metre's popular exposition of railroading, has been expanded to 350 pages, compared with the 230 pages of the original edition of 1926, and contains 300 illustrations—over 50 more than the fourth edition. In acknowledgment of the rapid, if not sensational, pace of new developments in the railway field, more than 175 of the 300 illustrations are entirely new and few of the photographs which were published in the edition of 1926 remain. Eight of the illustrations are in full color—bringing out the beauty of the six modern Diesel-electric trains and two streamlined steam locomotives they picture.

Besides an intensive re-working of each chapter to bring material up to date, a new chapter has been added to the "consist," describing in full the New York Central's New Twentieth Century Limited and the Pennsylvania's Broadway Limited. Most of the latest streamlined trains receive mention in "Tomorrow's Trains Become Today's" and nearly all of the American locomotives on display at the New York World's Fair are shown.

Originally written for the small boy who wants to know about "trains," *Trains, Tracks and Travel* has, through successive editions, become an up-to-date treatise on railroading suitable for the adult reader as well, although the simplicity of style of the first edition has been retained, as has the aim to interest the reader rather than lecture at him.

London to Cambridge by Train, by Reginald B. Fellows. 32 pages. 9½ in. by 6½ in. Privately printed and distributed.

Each year Walter Lewis, official printer for Cambridge University, England, presents a Christmas present to his wide circle of friends consisting of a copy of a book written especially for the occasion and privately printed under his personal direction. On August 24, 1938, he was guest of the London & North Eastern on a special run of the original "Flying Scotsman" of 1888, with Patrick Stirling's famous "Single-driver" No. 1, between London and Cambridge (on the return journey of which the 50-year old train attained 65 m.p.h. at Hatfield). Interested thereby in the history of train service between the University and the British metropolis, he prevailed upon Mr. Fellows, honorary canon of Westminster Cathedral and an enthusiastic railroad student, to undertake the research which led to the production of this valuable little volume. While only 140 copies of the work were printed, Paul Standard of the press department of the Canadian Pacific, is on Mr. Lewis' gift list and kindly loaned *Railway Age* his copy for review.

Quite naturally, the book excels typographically. At the same time, however, Canon Fellows has gathered together a body of varied and often humorous data concerning a typical British passenger run of some 57 miles throughout a period of 94 years. The author has been especially skillful in tracking down the relations between the University and the railway companies which included in the original act permitting the building of the line an agreement to the effect that railroad employees and officers must reveal to University officers information concerning any person traveling or seeking to travel on the railway "who shall be a member of the University or suspected of being such."

NEWS

A Fond Farewell to Forwarders

Roads no longer courting them,
except with Meyer and Mc-
Manamy as chaperons

Former Interstate Commerce Commissioners Balthasar H. Meyer and Frank McManamy, respectively, have been made trustees of stock whereby, according to the commission's decision in the Freight Forwarding Investigation, the New York Central has controlled the Universal Carloading & Distributing Corporation, and the Chesapeake & Ohio and Pere Marquette (along with the Erie which has not entered the trustee arrangement) have controlled the National Carloading Corporation. The commission's order on this phase of its decision became effective July 17, requiring the railroads involved to cease violations of the Interstate Commerce Act resulting from rendering by indirection a public service "which is unauthorized by tariffs on file."

Counsel for the New York Central and the C. & O. and Pere Marquette have filed with the commission the trustee agreements, which, they contend, constitute compliance with the commission's order. There is no tie-up between the trusteeships of the two former commissioners—as indicated above Dr. Meyer has taken over the holdings of N. Y. C. affiliates in United States Freight Company, Universal's parent corporation; while Mr. McManamy has taken over holdings of C. & O. and P. M. affiliates in Standard Carloading Corporation, National's parent corporation. Meanwhile counsel for the Erie trustees advised that in his opinion the action of C. & O. and P. M. made it unnecessary for the Erie to act since it was in no position to control National alone; also, he pointed out that the Erie, being in the hands of the court, is operated by trustees who would not be disposed to violate the law in their relations with forwarders.

It is understood that the material filed in connection with the trusteeships, together with memoranda thereon from members of the Bureau of Inquiry staff, are being considered by the commission. Meanwhile, Commissioner Porter has replied to the railroad counsel, saying that the trustee agreements would be accepted for the file but stipulating that such acceptance was not to be construed as an admission that the arrangements constitute compliance with the order in the Freight Forwarding

Nationwide Broadcast Will Tell Railroads' Story

"The Romance of the Railroads," an hour-long dramatization of railroad development and lore, will be broadcasted over the National Broadcasting Company's Blue network on Friday, July 28, from 8 to 9 p. m. (e. d. s. t.). Among its features will be a cast of 40 actors, a large concert orchestra and spot pick-ups from a typical terminal station and from aboard the maiden run of the P. R. R.'s new "Trail Blazer."

Investigation. Members of the Bureau of Inquiry staff are understood to have advised the commission that the trustee arrangements would not seem to constitute complete compliance because of the fact that the findings out of which the order grew were bottomed on "working arrangements" with the forwarders as well as the stock ownership. These staff members therefore took the position that it would also be necessary for the carriers involved to eliminate such "working arrangements" and went on to express doubt that such elimination could be accomplished by the trustees in the exercise of their power to vote the trusted stocks.

The commission's report in the Freight Forwarding Investigation was made public November 15, 1938, and reviewed in the *Railway Age* of November 19, 1938, page 745. It recommended, aside from its formal findings, that the railroads by appropriate cooperative effort should take over the business now handled by forwarders, merging it with their own l.c.l. operations in such a way as to perform a complete merchandise-freight service, either by themselves or through one or more wholly-owned or controlled agencies. Former Commissioner Meyer was among the commissioners who filed separate opinions. He concurred generally in the results of the majority opinion, but he thought that the proper way to settle questions of lawfulness of certain practices was to institute proceedings in the courts.

Last week the commission issued another order in the proceeding, reopening it for further hearing in so far as it concerns the practices of respondent rail carriers of carrying forward charges of forwarders as advances on outbound billing. The effective date of the order in so far as it affects that phase of the case was at the same time indefinitely postponed.

Rail & Truck Men Urge Equal Rates

Uniform rates for both media
in Pennsylvania urged in
report of joint committee

Uniformity of freight rates for common carrier truck and railroad transportation in the state of Pennsylvania in particular and nation- or territory-wide as an ultimate objective, is the chief recommendation of a joint committee of representatives of the common carrier truck and railroad industries in Pennsylvania set forth in a report drafted early this week for submission to the Public Utility Commission. Originally formed at the suggestion of Commissioner R. J. Beamish to discuss the possibility of harmonizing the rate structure within the state, the committee held its first joint session in Harrisburg on January 24. Subsequent sessions took place on February 24, March 31, May 12, June 23 and, finally, July 13. Members of the state regulatory body took keen interest in the proceedings while E. A. Boudreau, assistant to the director of the Interstate Commerce Commission's Bureau of Motor Carriers, attended the July 13 meeting as an observer.

The joint committee adopted the following principle: "That the public interest will be best promoted if there is a uniformity of rates for both truck and rail transportation. Uniformity is understood to mean the payment by the shipper or consignee of the same aggregate charge for a given service, irrespective of the type of transportation employed."

To bring this uniformity about the committee recommended the following action: (1) The adoption by common carriers by highway of the National Motor Freight Classification, subject to items 3 and 4; (2) the establishment by the common carriers by highway of the same class rates as maintained by the rail carriers,—the rates of the latter conform to I. C. C. Docket 15879 and the increases authorized in Ex Parte 123; (3) the establishment by the motor carriers of exceptions to the classification ratings as shown in Exhibit 98, submitted by the Middle Atlantic States Motor Carrier Conference to the Interstate Commerce Commission in Ex Parte MC 20, except where lower than rail ratings are provided in such exhibit, the ratings in Curlett's railroad exceptions shall be observed as minima; (4) the adoption of tariff rules as covered in a

(Continued on page 160)

British R. R. Sage Talks to Solons

Sherrington tells House group why merger was easier in Britain than in U. S.

A House judiciary subcommittee which has been considering during the past several weeks the railroad reorganization court bill, recently passed by the Senate, met in special session on July 15 to hear a discussion of the British railroad problem from C. E. R. Sherrington, secretary of the British Railway Research Service. Introduced to the committee by Judge R. V. Fletcher, vice-president and general counsel for the Association of American Railroads, as one "who is an expert on British railway problems and who has taught at Cornell and knows our railway problems even better than we know them ourselves," Mr. Sherrington discussed the broad general phases of the English system of railroads but refused to commit himself at any time during the discussion as to what might be the solution of the American railroad problem. Repeatedly, members of the subcommittee would query Mr. Sherrington as to what he thought about applying an English solution to a pending American problem, but every time the Briton would refuse to venture a comparison.

The major part of Mr. Sherrington's presentation followed the lines of a speech which he recently delivered before the Association of American Railroads' Accounting Division convention in Toronto, Ont., and which was reviewed in the *Railway Age* for July 8, page 73. During the two hours of testimony, he touched upon one phase of the British picture which was of especial interest to the members of the subcommittee who are considering the problem of railroad reorganizations and the creation of a special bankruptcy court to handle the details of such reorganizations. That phase of the picture was the financial set-up of the British railways and the manner in which the various roads were consolidated into four systems.

According to Mr. Sherrington, the matter of consolidations was entirely different in his country than it is in the United States because of the fact that in England there is no written Constitution which preserves property rights and circumscribes the workings of the legislature. Thus, he pointed out, in America property cannot be taken without due process of law, and bondholders have a definite tangible lien on the property of a railroad company, while in his country from whatever law Parliament enacts, there can be no appeal on the question of Constitutional rights. Moreover, according to Mr. Sherrington, the English have no legal entity which exactly corresponds to an American bondholder. The English security which most nearly resembles our bond, in the witness' opinion, is the debenture, which is nothing more than a fixed interest obligation backed by a promise of the railroad company to pay the principal and interest at a specified date.

Five-Months Net Deficit Was \$90,080,000

Class I railroads of the United States in the first five months of 1939 had a net deficit of \$90,080,000 after fixed charges, the Association of American Railroads announced on July 19. For the first five months of 1938, Class I roads had a net deficit of \$164,282,000.

The May net deficit was \$18,594,000, compared with one of \$25,277,000 in May, 1938.

Mr. Sherrington went on to explain that the English have other gradations of securities which roughly correspond to our prior-preferred, preferred, and common stocks, but that none of them carry a lien on the property of the company. As a result, he said, all the investors in an English railroad are shareholders in one form or other and get their interest only when it is earned. The corollary of this financial arrangement is, according to the witness, that the English railroads do not know the meaning of bankruptcy and foreclosures.

Mr. Sherrington did point out, however, that during the past few years railroad stocks have been removed from the "trustee" list in England, which corresponds to the various State insurance department lists of bonds approved as legal investments for insurance companies. This action was taken, he indicated, because of the fact that many railroad stocks were not earning sufficient dividends to qualify them as legal investments for British insurance companies.

Turning to the question of consolidation in detail, Mr. Sherrington told the committee that as a result of the merger of the smaller roads into four large systems, the capital structure of the British railroads was reduced about 10 per cent. Asked whether he thought such a consolidation would be feasible in this country, the witness declined to comment, saying that he did not think he was familiar enough with our problems to discuss it intelligently.

Queried by one committee member as to whether or not there were any recalcitrant stockholders in Britain who refused to assent to the consolidation plan and surrender their old stock for stock in the new companies, Mr. Sherrington explained that, due to the fact that Parliament is supreme and no Supreme Court can upset its decisions, the minority stockholders had no choice other than to go along with the plan, which was approved by a Parliamentary commission. Also, he pointed out that there was hardly any other choice for the stockholder in view of the fact that the old companies ceased to exist. The stockholder, whether he liked it or not, had to take the stock of the new company or be content with none. In many cases, according to Mr. Sherrington, the stockholder was better off with the stock of the new company than with his old stock.

This phase of Mr. Sherrington's presentation was continued on page 161.

Equipment Orders Await Liberal Loans

Lending-spending program will stimulate buying if terms are right

Railroad buying of equipment should be stimulated by President Roosevelt's lending-spending program if sufficiently attractive terms are offered, according to the testimony presented by J. J. Pelley, president of the Association of American Railroads, and other witnesses at the Senate committee on banking and currency's hearings on S. 2759, the bill introduced by Senator Barkley, Democrat of Kentucky, to carry out the President's proposals. As pointed out in recent issues of *Railway Age*, the program provides, among other things, for an outlay by the Reconstruction Finance Corporation of \$500,000,000 for new railroad equipment to be leased to the carriers, with or without an option to buy.

Aside from Mr. Pelley, witnesses talking particularly about the railroad-equipment phase of the program included Jesse H. Jones, former chairman of the R. F. C. who was sworn in this week as administrator of the new Federal Loan Agency; and Joseph B. Eastman, chairman of the Interstate Commerce Commission. Mr. Pelley's assurances that the plan would stimulate equipment buying was predicated upon acceptance of his suggestion that the section of the bill giving the R. F. C. power to design and build the equipment be stricken out. To Mr. Pelley that section meant that the government intended to embark upon a program of designing and building rolling stock; whereas, if the objective be to stimulate purchases of railway equipment, the "easy way" would be to make the money available to the railroads for loans at attractive rates. If there's going to be much buying he thinks the terms will have to be better than they have been, in which connection he believes it would help if Congress should establish a policy whereby the government would get its money back—but no big profit—from equipment loans.

Without going so far as to recommend that the section to which Mr. Pelley objected be stricken out, Commissioner Eastman suggested that certain provisions of it might be "dangerous" and "unnecessarily broad." Specifically, he does not think the R. F. C. is equipped to design equipment, while he has other misgivings about empowering the lending agency to buy equipment except on specifications from railroads who have committed themselves to lease such equipment. Commissioner Eastman explained that he was speaking only for himself, since the commission has not yet completed its report on the bill.

Administrator Jones of the Federal Loan Agency told the committee that he thought the objectives of the proposed legislation were good, particularly the self-liquidating loans and he believes such loans will be self-liquidating "if properly made." With respect to the railroad equipment phase Mr. Jones said that the carriers have a great

deal of equipment with "little more than scrap value." In his opinion the R. F. C. might allow them, say, double the scrap value to induce them to trade in the old equipment for new. The government, he conceded, might lose a little money at this stage of the transaction, but he thought such losses could be made up by a proper adjustment of the spread between the cost of the loan money to the government and the interest charged the railroads. At a press conference a few days later Mr. Jones suggested that arrangements might be made whereby the government would sell the scrap after W. P. A. labor had scrapped the equipment traded in.

Asked by Senator Taft, Republican of Ohio, why it was necessary to loan equipment money to railroads when they could get it through the usual channels, Mr. Jones replied that some roads might be induced to do things now which they would otherwise put off. The witness told Senator Radcliffe, Democrat of Maryland, that the railroads could be said to be in need of equipment only in the sense that they are now using "old and inadequate" rolling stock when they could probably do a better job with modern equipment. At his above-mentioned press conference, Mr. Jones said that he had made no study of the total amount that might be used for railroad equipment, adding that the carriers had not been sounded out. At the same time he intimated that R. F. C. would try to work out a variety of arrangements which would appeal to different railroads, and he thought the leasing plan would be found advantageous by some.

During the course of his testimony before the Senate committee, Mr. Jones was asked by Senator Maloney, Democrat of Connecticut, if he would favor an amendment to the bill which would permit railroads to borrow R. F. C. funds to purchase their own bonds at a discount and thereby reduce their fixed charges. Mr. Jones would favor such a provision, but he thinks it should stipulate that bondholders who thus sold their holdings should be given the difference between the selling price and the par value in preferred stock. Senator Maloney later asked Mr. Pelley the same question and the A. A. R. president said such a provision would help the railroads materially; and he thinks Mr. Jones' suggestion that the difference be made up in preferred stock would be "all right."

Commissioner Eastman was introduced by Chairman Wagner of the committee as one who had assisted in the drafting of the bill; but the commissioner said that all he had done was to suggest that provision be made for loans for railroad shop equipment as well as rolling stock. Addressing himself first to the question of the railroads' need for new equipment, Commissioner Eastman based his affirmative answer on his experience as co-ordinator of transportation, a member of the President's first railroad committee—the so-called Splawn-Eastman-Mahaffie Committee—and as a member of the commission. He cited the Splawn-Eastman-Mahaffie Committee's recommendation to the effect that \$300,000,000 be made available for equipment loans and the commission's

Dominion Government "Borrows" R. C. Vaughan for Defence Program

R. C. Vaughan, vice-president of the Canadian National in charge of purchases and stores, has been "loaned" by that road to organize the much-heralded Defence Purchasing Board at Ottawa. Mr. Vaughan is widely known in Canada as one of the Dominion's ablest purchasing men and Premier King said the government was glad to be able to use his ability to set up the Purchasing Board for the National Defence Department. He will continue to serve the Canadian National as its purchasing department head and will return to his railway work as soon as a permanent chairman of the Purchasing Board has been found by the government.

endorsement of that recommendation in its last annual report. Members of the Splawn-Eastman-Mahaffie Committee, Mr. Eastman said, were under the impression that additional legislation was needed to implement their recommendation but he is informed that the loan situation is now adequately covered. Summing up, Mr. Eastman said that there is a need for equipment, and its acquisition would be of profit to the railroads. He added that \$500,000,000 would not be too much money to make available if traffic continues to increase as it has in recent weeks.

As to the need for additional legislation to provide for equipment loans, Mr. Eastman said that he could express no confident opinion, but he was inclined to believe that under the bill more favorable arrangements could be made to some railroads under particular circumstances. Asked by Senator Townsend, Republican of Delaware, if the proposal to have the R. F. C. acquire the equipment for lease to the railroads was feasible, Mr. Eastman said he wouldn't like to see the government get into the business permanently. He would, however, be willing to trust the power to a man like Mr. Jones. The question was raised as to whether Mr. Jones would pass on R. F. C. loans in his new position as head of the Federal Loan Agency which embraces R. F. C. along with other agencies. Senator Glass expressed the view that Mr. Jones "has had a white feather stuck in his hat, and has been lifted to an honorary place."

Here came Mr. Eastman's above-mentioned suggestion that the bill may be too broad in its provisions permitting the R. F. C. to design equipment and have it built for its own account. He added, however, that he thinks there could be much more standardization of equipment than the railroads admit. In his opinion the present situation works out so that equipment is virtually custom built, precluding the builders from gaining the benefits of mass production.

A. A. R. President Pelley first made his above-mentioned recommendation that the section giving the R. F. C. power to de-

sign and build equipment be stricken out. Arguing for liberal loan terms he pointed out, without criticizing, that in 1933 \$200,000,000 of equipment money was made available and most of it used; and the R. F. C. sold the securities involved to the public at a substantial premium. These were four per cent loans, and Mr. Pelley thinks terms would now have to be more liberal if buying were to be stimulated. Asked by Senator Townsend what rate he would suggest, Mr. Pelley recalled the committee-of-six recommendation for equipment loans at two per cent.

With favorable terms Mr. Pelley thought equipment would be bought, although he pointed out that the railroads could now handle a 25 per cent increase in traffic with serviceable equipment stored; and a 40 per cent increase if other usable equipment were repaired. He explained, however, that modern equipment would make for more economical handling, and thus in his opinion if the terms are right the program will bring forth some equipment orders.

Testifying on July 19, Marriner S. Eccles, chairman of the board of governors of the Federal Reserve System, discussed the railroad-equipment phase of the program at some length. In connection with the provisions to which Mr. Pelley objected, Mr. Eccles said there was never any thought that the R. F. C. was going out to buy equipment in the hope of leasing it—the idea behind the provisions was a belief that some roads might prefer a leasing arrangement to borrowing money. On the same point Senator Barkley said that he had prepared an amendment designed to preclude the government's getting into the business of building equipment. Senator Taft asked Mr. Eccles how any railroad executive could feel justified in borrowing money for new equipment when the railroads were faced with the \$750,000,000 highway program which the bill also calls for. Mr. Eccles did not think that the type of "self-liquidating" highway projects proposed would be as harmful to the railroads as the present set-up wherein commercial users of the highways are permitted to operate without making adequate payments. He added that he can "certainly agree with the railroads" on the proposition of exacting adequate payments from commercial users of the highways.

Among other witnesses before the committee was Thomas H. MacDonald, chief of the Bureau of Public Roads, who discussed the proposal to set up a \$750,000,000 fund for the construction of "self-liquidating" toll roads, bridges, high-speed highways and city by-passes." The same witnesses have appeared or were scheduled to appear with similar testimony at the House banking and currency committee's hearing on the companion bill—H. R. 7120, introduced by Representative Steagall, Democrat of Alabama.

I. C. C. Rules Against Chicago, South Shore & South Bend

Division 3 of the Interstate Commerce Commission has found that the Chicago, South Shore & South Bend does not fall within the terms of the exemption proviso in section 1(a) of the Carriers' Taxing Act of 1937 or section 1(a) of the Railroad

Retirement Act of 1937. The company had argued that it was an interurban electric railway and came within the exemption provisos of both acts. This position was disputed by the Railroad Retirement Board.

Club Meeting

The Transportation Club of the Rochester (N. Y.) Chamber of Commerce will hold its third annual golf tournament at the Brook-Lea Country Club, Rochester, on August 8.

"Mercury" Completes Three-Years Service

The "Mercury," the New York Central's streamlined high-speed train between Cleveland, Ohio, and Detroit, Mich., completed three years of service on July 15. During this period it carried approximately 350,000 passengers on its schedule of a round trip each day.

Status of R. F. C. Rail Loans

The monthly statement of the Reconstruction Finance Corporation as of June 30, showed disbursements to railroads, including receivers, of \$649,951,461 and repayments of \$210,752,005. The Corporation announced that since the resumption of lending during February, 1938, it had authorized 34 loans to railroads in the total amount of \$152,971,112.

Illinois Central Consolidates Accounting Offices at Chicago

To promote efficiency and utilize improved mechanical accounting machinery to obtain speedier production of accounting records, the Illinois Central is consolidating all accounting work in Chicago. The change will be accomplished by transferring more than seventy-five employees of the auditor of disbursements office from Memphis, Tenn., to Chicago.

Senate Approves Bridge Measure

The Senate has passed S. 1989, the bill to relieve the railroads of some of the cost of reconstructing bridges required to be altered in connection with waterway improvement projects. Details of the measure were given in the *Railway Age* for July 1, page 45. A similar provision is included in the House omnibus transportation bill which was reported to that body this week and details of which are given elsewhere in this issue.

A. C. L. and F. E. C. to Run New York-Florida Streamliner Service

A new service by streamlined, Diesel-electric, stainless steel deluxe coach trains will be inaugurated daily between New York and Florida on or about December 1, according to an announcement by the Atlantic Coast Line and the Florida East Coast. The trains covering the service will each consist of a 2,000-hp. Diesel-electric locomotive, dining car, baggage coach, four chair cars and a combination observation-tavern car, all of which accommodations will be offered at standard coach fares.

The Atlantic Coast Line recently purchased two seven-car, stainless steel trains

from the Edward G. Budd Manufacturing Company to match two similar trains already purchased from the same source by the Florida East Coast. One of the latter two will be operated in the New York-Miami, Fla., service along with the A. C. L. trains, while the other will operate on a daily schedule between Jacksonville, Fla., and Miami.

Quebec Body Holds Up Truck O. K.'s to Give R. R.'s a Chance

The Transport Commission of Quebec has postponed granting permanent permits to motor truck operators for transportation of vegetables, fruit and fresh fish between Lacolle and Montreal until September to permit competing railroads to produce a complete list of competitive rates and schedules. In the meantime the trucking companies are being given an extension of their current temporary running permits.

Counsel for the railroads representing the Canadian Pacific, the Canadian National, Napierville Junction, New York Central and the Rutland, argued that the railroads should be given preference whenever possible because they perform an essential service to the general public and bear the entire costs of transportation. They indicated that a two-month postponement would enable the railroads to revise rates and schedules to place them on an equal footing with the trucks. Counsel for the trucking companies declared that most of their clients have only temporary permits and many have paid for vehicles on the installment plan. They opposed delay in granting the permanent permits because it would cause anxiety to the truckers concerning their continued existence.

Inland Waterways Corporation

Secretary of Commerce Hopkins has issued an order placing the Inland Waterways Corporation under the direction of Assistant Secretary of Commerce Johnson. The Corporation was transferred to the Commerce Department from the War Department under the terms of the governmental reorganization plan which became effective July 1. The order provides that Major General T. Q. Ashburn will continue as President of the Corporation.

Export Bill of Lading

Examiner David T. Copenhafer has recommended in a proposed report that the Interstate Commerce Commission modify certain conditions in Part II of the through export bill of lading in the light of the Carriage of Goods by Sea Act approved by Congress April 16, 1936. The proposed report is upon further hearing in I. C. C. Docket No. 4864, and it also recommends certain other minor changes in the export bill of lading heretofore prescribed by the commission.

Schram Heads R. F. C.

Emil Schram of Illinois, a member of the board of directors of the Reconstruction Finance Corporation, has been chosen as chairman by a vote of that group. He will replace Jesse Jones, who this week

was sworn in as the new Federal Loan Administrator. Mr. Schram has been the head of the R. F. C.'s business loan section since 1935. The resignation of Mr. Jones leaves a vacancy on the board of directors which will have to be filled by Presidential appointment.

Freight Car Loading

Loading of revenue freight for the week ended July 15 totaled 673,812 cars, the Association of American Railroads announced on July 20. This was an increase of 114,703 cars, or 20.5 per cent, above the preceding week which included the July 4 holiday, an increase of 71,367 cars, or 11.8 per cent, above the corresponding week in 1938, but a decrease of 92,572 cars, or 12.1 per cent, below the comparable 1937 week.

As reported in last week's issue, the loadings for the previous week ended July 8, totaled 559,109 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading For Week Ended Saturday, July 8			
Districts	1939	1938	1937
Eastern	110,311	95,458	133,178
Allegheny	104,708	86,879	134,958
Pocahontas	42,337	33,121	43,386
Southern	80,928	75,723	88,457
Northwestern ..	81,882	67,473	117,283
Central Western ..	97,031	97,511	110,393
Southwestern ..	41,912	44,816	51,303
Total Western Districts	220,825	209,800	278,979
Total All Roads	559,109	500,981	678,958
Commodities			
Grain and Grain Products	53,456	56,320	46,911
Live Stock	9,422	9,896	10,094
Coal	89,635	70,545	97,368
Coke	5,597	3,833	9,805
Forest Products ..	22,030	20,921	32,722
Ore	36,423	20,273	74,566
Merchandise l.c.l.	127,662	123,231	140,563
Miscellaneous ..	214,884	195,962	266,929
July 8	559,109	500,981	678,958
July 1	665,528	588,880	802,346
June 24	642,987	558,788	769,945
June 17	637,873	555,519	752,787
June 10	634,597	553,854	750,500
Cumulative Total, 27 Weeks	15,902,231	14,731,613	19,719,133
In Canada.—Carloadings for the week ended July 8 totaled 47,146, as compared with 40,783 in the previous week and 43,261 a year ago, according to the statement of the Dominion Bureau of Statistics.			
	Total Cars Loaded	Total Cars Rec'd from Connections	
Total for Canada:			
July 8, 1939	47,146	17,938	
July 1, 1939	40,783	20,253	
June 24, 1939	45,366	20,785	
July 9, 1938	43,261	16,699	
Cumulative Totals for Canada:			
July 8, 1939	1,157,593	595,016	
July 9, 1938	1,183,178	558,666	
July 10, 1937	1,286,527	749,159	

Lightweight Pullman Cars Placed in Service on N. Y. C.

Nineteen new, all-roomette-type, lightweight Pullman cars were placed in service July 15, by the New York Central System. A number of the new cars have been placed in service between Chicago and New York on the Twentieth Century Limited, the Commodore Vanderbilt and the Iroquois. Others will run between St. Louis and New York in the Southwestern Limited and in other trains serving Toledo, Cleveland, Cincinnati and Detroit. The new cars which were placed in

service on the Century, Commodore Vanderbilt and Iroquois consist of 18 roomettes each and embody all of the newest improvements such as complete toilet facilities in each room, individual control of the temperature, large beds which fold into the walls when not in use and complete privacy for the occupants.

New Joint Committee to Study Adjustment Board Problems

The joint management-labor committee of 12 which was appointed to study the question of the railroad adjustment boards and which held its initial meeting in Chicago last week, has decided to appoint a subcommittee of 12 members which will make a detailed study of the subject and submit its recommendations to the committee. It has been learned that the six labor representatives will not be appointed until the latter part of this month with the result that the first meeting will probably not be held before some time in early August.

I. C. C. Asks for Supplemental Appropriation

The Director of the Bureau of the Budget has submitted to the House committee on appropriations a supplemental estimate of appropriations for the Bureau of Statistics of the Interstate Commerce Commission for the fiscal year ending June 30, 1940, amounting to \$40,000. I. C. C. Chairman Eastman, Commissioners Splawn and Caskie, Secretary Bartel and Arthur F. White, assistant director of the Bureau of Statistics, appeared before a House appropriations subcommittee on July 13 to urge the inclusion of the \$40,000 item in a deficiency bill.

Chairman Eastman and Commissioner Splawn explained to the committee that the extra money would be used to enable the Bureau to make analyses of cost data submitted in rate cases in connection with

applications for minimum rates, particularly by motor carriers. They also told the committee that under the allocation of \$275,995 for the work of the Bureau of Statistics that body might compile only the routine statistics from the carriers' reports, without such analysis thereof as should be made to develop accurate cost information affecting traffic and rates.

It was further explained that without the cost data, the commission was handicapped in the discharge of its regulatory functions. Many rate cases, it was pointed out, are now in progress and in order to prepare the commission's opinions without undue delay, it would be necessary to employ additional personnel to assemble and analyze the statistical data from exhibits connected with the various proceedings.

Harvey Couch Plans Rate Innovations on K. C. S.

In an address at a banquet at Texarkana, Ark., on July 11, Harvey C. Couch, president of the Kansas City Southern advocated a number of changes in the railways' rate structure, including adjustments in rates to induce shippers to load more than the minimum carload weight, and a space rate for poultry and dairy products and discussed the method of collective shipping recently adopted on the K. C. S.

In discussing means to get shippers to load more than minimum carloads, Mr. Couch stated that the K. C. S. plans to grant a lower rate to shippers for that portion loaded over the minimum carload weight requirement and stated as an example, "if the minimum carload weight for a car of sugar is 40,000 lb., and the rate is 30 cents per 100 lb., we are contemplating offering the shipper a half rate on all sugar loaded in the car in excess of the 40,000 lb. This would be an inducement to the shipper to put more sugar in the car, as well as an aid to railroad revenue. If the car empty weighs 50,000 lb. and is loaded with 40,000 lb. of sugar, the rail-

road is hauling 1¼ lb. of dead weight for each pound of revenue freight, but if the same car is loaded with 80,000 lb. of sugar the proportion of dead weight hauled per pound of revenue freight is greatly reduced."

In his plan for a proposed space rate for poultry and dairy products Mr. Couch said, "We are considering adopting a space rate in our baggage cars for these products. Mail is now carried on space rates, with the allotments being made for mail in five-foot spaces. We are planning to sell a man so much space for a certain price. He can put chickens, eggs, milk, cream or other farm products in this space. The sale of space will eliminate the necessity for complicated billing, and these cars would move on passenger trains, assuring the speediest delivery to the markets in the best condition."

Mr. Couch also revealed that the Kansas City Southern has begun a plan of "collective shipping." Under this plan cars are set out on certain days at different points along the line. The farmer or stockman can ship as many head of cattle, sheep or other livestock as he desires. These cars are picked up by fast trains and delivered to the Kansas City market early the next morning. In addition, arrangements are being made to have the commission agent in Kansas City notify the railroad of the amount of the sale, which in turn will notify the K. C. S. agent at the local shipping point and the shipper will be paid immediately.

Iranian Railroad to Purchase Equipment

The Department of Commerce has announced that its Transportation Division has received specifications for a number of freight and switching locomotives, freight cars, passenger coaches and special coaches on which the Iranian Railway Administration has called for bids. Bids are asked on orders for 150 freight locomotives, 22 Diesel switchers, 1,866 freight cars and 120 passenger and special coaches.

The Department's announcement states that adjudication closes at noon on August 26, but that cable inquiry has been made by the Department as to whether postponement of the adjudication date is possible. Specifications are available to interested firms at the Transportation Division, Department of Commerce, Washington, D. C.

June Operating Revenues 12 Per Cent Above Last Year

Preliminary reports from 91 Class I railroads, representing 81.9 per cent of total operating revenues, made public on July 17 by the Association of American Railroads, show that these roads, in June, had estimated operating revenues amounting to \$258,806,064 compared with \$231,122,036 in the same month of 1938 and \$361,712,731 in the same month of 1930. The June gross was 12 per cent above that for June, 1938, but 28.5 per cent below June, 1930.

Freight revenues of the Class I roads in June, amounted to \$203,975,993 compared with \$179,014,386 in June, 1938, and \$269,587,673 in June, 1930—13.9 per cent above the former, but 24.3 per cent below



Samuel M. Vauclain inspecting the first locomotive of an order of twenty-eight 4-8-2 type now under construction at the Baldwin Locomotive Works for the Southern Pacific, following ceremonies on July 13 at which the locomotive was formally delivered to F. E. Russell, mechanical engineer of the Southern Pacific. President Charles E. Brinley of the Baldwin Locomotive Works is looking down from the cab window.

the same month in 1930. Passenger revenues totaled \$32,183,084 compared with \$29,423,865 in June, 1938, and \$56,400,937 in June, 1930—9.4 per cent above the former, but 42.9 per cent below the same month in 1930.

Susquehanna to Inaugurate Bus Connection August 1

A connecting motor bus service between North Bergen, N. J., and the mid-town section of Manhattan, New York city, via the Lincoln vehicular tunnel, will be inaugurated by the New York, Susquehanna & Western, effective August 1. Leasing its vehicles from the Public Service Co-ordinated Transport, a large operator in urban and interurban New Jersey, the road will, during morning and evening rush hours, carry its passengers between North Bergen and the Public Service terminal in the heart of the Times Square district for a straight 15-cent fare, saving them from 20 to 30 minutes as compared with the present route via the Erie terminal at Jersey City, ferry or tube across the Hudson river and subway up to the mid-town area.

The Susquehanna operates a passenger train service chiefly for commuters between Butler, N. J., and New York via the Erie ferries. The North Bergen Station about seven miles north of the Jersey City terminal, is to be relocated and reconstructed as "Susquehanna Transfer."

Eastern Car Foreman's Outing

Approximately 200 railroad and supply men and guests attended the annual outing and golf tournament of the Eastern Car Foreman's Association at the Race Brook Country Club, New Haven, Conn., on Thursday, July 13. During the day numerous events provided the entertainment and a dinner was held at the clubhouse in the evening. A number of prizes were awarded in the golf tournament, the winners of which were as follows: Class A—Low gross, T. M. Ferguson, American Arch Company; low net, H. Nuhn, B. & A. Class B—low gross, W. K. Krepps, Crucible Steel Company; low net, A. W. Brown, Air Reduction Sales Company. Class C—low gross, E. W. Ball, N. Y. N. H. & H.; low net, G. A. Price, American Arch Company.

In the kickers contest, J. Dillon, Pittsburgh Screw & Bolt Corporation was the winner and in the putting contest, L. J. McCombs, Patterson Sargent Company and Robert H. Weatherly, The Pilloid Company, were winners. The bridge prize was taken by Richard R. Paradies, Beckwith-Chandler Company. The general arrangements for the outing were under the direction of J. P. Egan, president of the association; F. H. Decherer, general chairman; A. E. Calkins and R. Sonquist, vice-chairmen, and 11 committee chairmen.

N. & W. Publicizes Its Harriman Safety Award

The Norfolk & Western has published a 20-page illustrated booklet to mark its winning of the E. H. Harriman Memorial Gold Medal for Class A roads (operating 10,000,000 or more locomotive-miles an-

nually) for 1938. Containing photographs of the award ceremony, the committee of award, E. H. Harriman, N. & W. safety department and scenes on the road, the booklet bears an embossed and gilded impression of the upper side of the medal on its front cover and the reverse side on its rear cover.

In the text it is pointed out that the N. & W. established its lowest casualty for both passengers and employees in 1938; official statistics show that passenger casualties per million passenger-miles were reduced 85.6 per cent since 1924 and the employee casualty rate (per million man-hours worked) 83.7 per cent. A graph bound in the booklet shows a successive decline in the employee casualty rate per million man-hours from 39.55 in 1912 to 3.95 in 1938. The booklet especially stresses the work of the system safety committees in achieving this record and a double-page spread bearing the individual photographs of the chairmen of the local N. & W. safety committees appears in its center.

R. R. Unemployment Insurance Goes Into Effect

The Railroad Retirement Board began paying benefits this week under the provisions of the unemployment insurance act which was passed for railroad employees last year. The board reports that some 65,000 claims for benefits are on file. The largest amount that an employee may receive under the law is \$240 a year. The benefits are payable for a maximum period of 80 days to workers who qualify and can show that they earned \$150 in the previous year.

The board's "Weekly Review" states that a total of 132,243 annuities and pensions were being paid under the Railroad Retirement Act at the end of the fiscal year 1938-1939 as compared with 108,240 at the beginning of the year. The total monthly amount payable to pensioners and annuitants under the act was \$8,290,476 at the end of the fiscal year as compared with \$6,708,317 at the beginning of the year.

The number of employee annuities, death benefit and survivor annuities continuously increased, the statement points out, and the number of pensions steadily decreased during the fiscal year. Of the total claims in force on June 30, 1939, 68.2 per cent were employee annuities; 29.9 per cent pensions; 1.3 per cent survivor annuities; and 0.6 per cent death benefit annuities. On June 30, 1938, the comparable percentages were 58.1, 40.6, 0.7, and 0.6. Two factors, the board says, largely account for the striking decline in the proportion of pensioners—one, that practically no private pensioners were transferred to the board rolls in the fiscal year 1938-1939, and two, that their number is gradually being reduced by death.

The number of annuities being paid on a temporary partial basis declined steadily each month during the fiscal year, dropping from 3,285 at the end of June, 1938, to only 662 at the end of June, 1939. This decline, according to the board, was due to a decrease in the number of new certifications on a temporary partial basis and to the recertifications of a large number of temporary partial annuities to a regu-

lar basis after check of service and compensation.

The Southern Pacific Transportation Company (Texas) and the Southern Pacific Transport Company of Louisiana, Inc., are employers within the meaning of the Railroad Retirement Act of 1937, according to a recent board ruling. The board goes on to state that both companies are directly owned and controlled by the Southern Pacific, a carrier employer under the act, and are principally engaged in the performance of a service in connection with the transportation of property by railroad.

The board has also ruled that the Kelley's Creek Barge Line, Inc., is an employer within the Railroad Retirement Act of 1937, as a company under common control with the Kelley's Creek & Northwestern, a carrier employer under the Act, and performing services in connection with the transportation of property by railroad.

Rail & Truck Men Urge Equal Rates

(Continued from page 155)

form of tariff recommended by the committee; (5) "in principle there should be no commodity rates on merchandise traffic, but recognizing that there may be unusual and special circumstances which would require specific treatment such cases are to be presented to the Public Utility Commission, with supporting facts, and in conformity with the program hereinafter outlined."

Railroad and truck representatives could reach no agreement in the matter of granting allowances in lieu of pick-up and delivery service. The motor carrier group held this to be an undesirable practice while the railroad men adhered to the contrary belief. It was decided that in the event the above program be carried out that pick-up and delivery rules be adjudicated by the Commission.

The committee is of the opinion that such a program of freight rate stabilization cannot be achieved without the prescription of minimum rate orders by the Public Utility Commission. In this connection its report reads: "It is common knowledge that while the trucking industry has made remarkable strides in organizing itself, it still lacks the necessary cohesion to bring about the effective co-operation that is essential. This is due primarily to the vast number of operators and the unfair competition from so-called contract carriers, some of which are undoubtedly common carriers in fact." The committee, therefore, recommended that the Public Utility Commission take steps to prescribe and enforce a minimum rate order below which no common carrier may be permitted to go.

The committee also recognized that the treatment of the program from the standpoint of common carriers alone will not suffice; that contract carriers present a type of competition which "takes a vicious form of concentrating on the desirable and volume movements and leaves to the common carriers the transportation of sporadic

ic traffic." They, therefore, recommended that the commission prescribe minimum rates for contract carriers "which shall give no advantage or preference to any such carrier in competition with common carriers."

Being of the opinion that intrastate and interstate traffic are in many ways related, the committee believes that it would be highly desirable if the recommendations were adopted for uniform application in the general territory involved. This it views as the ultimate objective. In this connection, a copy of the report is being sent to Chairman Joseph B. Eastman of the Interstate Commerce Commission.

The report was prepared under the signatures of Fred Carpi, general freight agent, Pennsylvania, and J. P. Clark of the Horlacher Delivery Service. Railroad representatives serving on the committee were H. G. Settle, assistant freight traffic manager, Baltimore & Ohio; L. R. Jones, general freight agent, Reading; A. C. McIntyre, freight traffic manager, Lehigh Valley; E. J. Zschirpe, assistant to vice-president of freight traffic, New York Central; L. W. Horning, regional director, Eastern region, Competitive Transportation Research, Association of American Railroads. Other railroad representatives assisting the joint committee were T. J. Minich, New York Central; E. Keil, general eastern and foreign freight agent, Central of New Jersey; and G. R. Richardson, assistant general freight agent, Pennsylvania.

British R. R. Sage Talks to Solons

(Continued from page 156)

entation was concluded when he admitted that the problem of financial reorganization in this country was vastly different from that in England and that, in the last analysis, not much could be gleaned from the English experience with consolidation which would greatly help us in solving our own problems.

The discussion was closed with an explanation by the British railroad expert of the wages paid to English railroad laborers. He told the committee he believed the standard of living of the British railroad worker would compare favorably with that of our own railroad employees. He went on to explain that although the average wage for all actual operating employees was about \$20 a week and the average wages of railroad clerks amounted to \$12 a week, yet their standard of living was fairly high because of the low prices in England and the amount of free services offered by the railroad companies to their employees. In this regard, he said that company houses were rented to employees on the basis of six rooms for \$2 a week. Also, the companies permit the employees to farm plots of the right-of-way where they raise most of their own vegetables.

Representative Robison, Republican of Kentucky, remarked that "We wouldn't have any trouble in this country with the railroads if we only paid \$12 a week to engineers." "If we didn't try to pay railroad labor higher wages than we paid men

in similar lines of work, we wouldn't have any railroad problem," added Representative Walker, Democrat of Pennsylvania. Representative McLaughline, Democrat of Nebraska, who was presiding in the absence of the sub-committee's chairman—Representative Chandler, Democrat of Kentucky—thanked Mr. Sherrington for being kind enough to give the committee the results of the British attempt to solve the railroad problem.

Senate Subcommittee to Study Refrigerator Bill

Senator Wheeler, Democrat of Montana and chairman of the Senate interstate commerce committee, has appointed a subcommittee to consider S. 2753, a bill introduced by Senator Shipstead, Farmer-Laborite of Minnesota, which would amend Part I of the interstate commerce act with respect to the use of refrigerator cars. The subcommittee composed of Senators Shipstead, chairman; Bone, Democrat of Washington; and Stewart, Democrat of Tennessee will hold hearings on the measure on July 20.

Representative Cannon, Democrat of Florida, has introduced in the House, H. R. 7170, a bill to require railroads and motor carriers to inspect property accepted by them for shipment. The bill creates a presumption that property is delivered to a carrier in good condition if the claimed damage is of such a nature it could have been discovered by the carrier in the exercise of reasonable diligence at the time that the property was accepted for shipment, and such damage is not specifically noted on the bill of lading or receipt given by the carrier.

The Senate has passed and sent to the House S. 1708, a bill relating to the liability of common carriers for injuries to employees. There are three main provisions of the bill, the first of which clarifies the question of whether or not an injured railroad employee was engaged in interstate commerce so as to come within the provisions of the act. The second main provision does away with the assumption of risk doctrine in certain cases where death or injury is caused by the negligence of a carrier and makes the comparative negligence doctrine applicable. The third provision prohibits the promulgation or enforcement of rules which penalize railroad employees for giving information concerning accidents to injured persons or their representatives.

Co-Ordination in the Lower Rio Grande Valley

The Missouri Pacific has added another district to its co-ordinated rail-highway system by establishing a new truck service for handling merchandise to cover the Lower Rio Grande Valley. Merchandise is handled into Harlingen, Texas, the distribution point, by rail, and moved from there by truck to the numerous other cities and towns throughout the Valley. This is the first of the Missouri Pacific's co-ordinated operations in Texas, although extensive truck routes have been operated in Kansas and Missouri for some years by this railway, and a system of Louisiana truck routes was established a year ago.

Equipment and Supplies

LOCOMOTIVES

THE SEABOARD AIR LINE has ordered two Diesel-electric locomotives of 2000-hp. each, from the Electro-Motive Corporation for service on light-weight passenger trains.

THE UNITED STATES NAVY DEPARTMENT.—The Atlas Car & Manufacturing Co. submitted the lowest bid for one 50-ton Diesel-electric locomotive for the Navy Department.

FREIGHT CARS

THE NEW YORK, NEW HAVEN & HARTFORD will send out inquiries in the near future for 25 caboose cars.

THE AMERICAN CAR & FOUNDRY COMPANY has been authorized by the Interstate Commerce Commission to construct for experimental service in the transportation of petroleum products 10 tank cars of 8000-gal. capacity, with tanks fabricated by the fusion-welding process.

PASSENGER CARS

THE SEABOARD AIR LINE has ordered 14 cars for two light-weight streamlined passenger trains of seven cars each, from the Edward G. Budd Manufacturing Company. Inquiry for this equipment was reported in the *Railway Age* of July 8, page 88.

THE BOARD OF TRANSPORTATION, CITY OF NEW YORK, will receive bids until 11:30 a. m. (daylight saving time), August 22, in Room 609 at 250 Hudson street, New York, for 150 steel passenger cars for subway service, including option for ordering 100 or 150 additional cars. Contract No. R-9. The contemplated purchase of this equipment was reported in the *Railway Age* of July 8, page 88.

IRON AND STEEL

THE NEW YORK, NEW HAVEN & HARTFORD has placed orders for 6,528 tons of 112-lb. rail and accompanying track materials.

NEW YORK CENTRAL.—A contract has been given to the American Bridge Company for 450 tons of steel to be used in the construction of a new freight house for the New York Central, in its Thirtieth Street yard, New York. James Stewart & Co., New York, has the general contract for this work.

SIGNALING

MARYLAND.—Sealed proposals for furnishing and delivering signal and gate materials for installation of flashing-light type highway crossing signals and gates at Midland, Md., will be received by the State Roads Commission at its office, Federal Reserve Bank building, Calvert and Lexington streets, Baltimore, Md., until 12:

o'clock noon, July 31. L. H. Steuart is secretary of the State Roads Commission.

NORTH CAROLINA.—Sealed proposals for the installation of three flashing-light signals on the Durham & Southern, will be received by the North Carolina State Highway and Public Works Commission in the office of William L. Craven, bridge engineer, Raleigh, N. C., until 10:00 a. m., August 8.

MOTOR VEHICLES

THE BOSTON & MAINE TRANSPORTATION COMPANY has received delivery of five 37-passenger buses from the a.c.f. Motors Company.

THE SANTA FE TRAIL TRANSPORTATION COMPANY has received delivery of five 37-passenger buses and five 35-passenger buses from the a.c.f. Motors Company.

THE SANTA FE TRANSPORTATION COMPANY has received delivery of six 35-passenger buses and fifteen 33-passenger buses from the a.c.f. Motors Company.

Supply Trade

M. Iseldyke, Jr., vice-president of **The Q and C Co.**, has been elected president. Mr. Iseldyke, who started his career in the mechanical department of the Delaware, Lackawanna & Western has been with the Q and C Company since 1913,



M. Iseldyke, Jr.

serving in the capacity of secretary for a number of years. **R. R. Martin**, who has been with the company for 24 years, was elected secretary and treasurer. Both of these officers will also serve on the board of directors. **W. M. Vinnedge**, formerly regional representative of the Worthington Pump and Machinery Corp., has been appointed eastern district sales manager. All of the above will have their headquarters at the New York office, 90 West street.

William Blackie has been appointed controller of the **Caterpillar Tractor Company**, Peoria, Ill. Mr. Blackie was formerly supervising manager of the Chicago office of Price, Waterhouse & Company, accounting firm.

Financial

BOSTON TERMINAL.—*Trustee.*—Charles W. Mulcahy, co-trustee of the Boston & Providence, has asked the Interstate Commerce Commission for authority to hold the position of trustee of the Boston Terminal.

CANADIAN NATIONAL.—*New Director.*—James A. Northey, head of the Northey Printing Company, of Toronto and of the Telfer Paper Box Company has been named a director of this company by Prime Minister King. Mr. Northey succeeds J. Y. Murdoch who resigned last winter after rather severe criticisms of C. N. R. management.

CHICAGO & NORTH WESTERN.—*Ratification of Trustee.*—Division 4 of the Interstate Commerce Commission has ratified the appointment of Charles M. Thomson as trustee of this company in the reorganization proceedings under section 77 of the Bankruptcy Act. Mr. Thomson had told the commission at a public hearing that were he ratified as trustee of this company, he would like to take with him from the Chicago & Eastern Illinois, of which he is now the trustee, C. T. O'Neal, president of the C. & E. I. and R. L. Williams, vice president. Division 4's opinion stated that the record in the case showed the undesirability of the removal of O'Neal from his present position at this time, but it did not attach any condition to Mr. Thomson's ratification.

Following approval of the appointment, Federal Judge John P. Barnes on July 14, with a formal court order approved a \$100,000 bond for Mr. Thomson, who resigned as trustee of the Chicago & Eastern Illinois to accept his new position, effective July 20.

CHICAGO, BURLINGTON & QUINCY.—*Abandonment.*—This road has applied to the Interstate Commerce Commission for authority to abandon a 14.6-mile branch line between Birmingham, Iowa, and Batavia.

DENVER & RIO GRANDE WESTERN.—*Equipment Trust Certificates.*—Division 4 of the Interstate Commerce Commission has authorized this company to assume liability for \$1,290,000 of three per cent equipment trust certificates, maturing in 15 equal annual installments of \$86,000 on August 1, in each of the years 1940 to 1954. The issue has been sold at 101.6789 to Bosworth, Chanute, Loughridge & Co., of Denver, Colo., and Stone & Webster and Blodget, Inc., of New York City, making the average annual cost of the proceeds to the company approximately 2.75 per cent.

ERIE.—*Bond Interest.*—W. L. Best, special master appointed in connection with reorganization of this road, has filed an interim report in the federal district court at Cleveland, Ohio, recommending an interest rate of 4½ per cent on New York & Erie mortgage bonds which matured March 1, 1938. The Chase National Bank, New York, trustee for the issue, recently

filed a claim seeking payment of 6 per cent interest on the bonds and unpaid coupons which matured March 1, 1938, after the maturities had been extended by three extension contracts. In his report Mr. Best decided that no interest was allowable on overdue coupons and that the interest rate on the bonds should be 4½ per cent.

LEHIGH & NEW ENGLAND.—*Abandonment.*—Division 4 of the Interstate Commerce Commission has authorized this company to abandon its so-called Nazareth branch extending from Northampton Junction, Pa., to Broadway, 9.9 miles.

LOUISIANA & ARKANSAS.—*Bonds.*—Division 4 of the Interstate Commerce Commission has modified its order of April 13, 1939, so as to authorize the procurement of authentication and delivery by this company of \$850,000 of first mortgage five per cent bonds, series C; \$650,000 thereof to be pledged, in substitution for a like principal amount of first mortgage six per cent bonds of the Louisiana, Arkansas & Texas, as collateral security for a promissory note in the face amount of \$350,000, and the remainder to be held in the company's treasury subject to the further order of the commission.

LOUISIANA & NORTH WEST.—*Reorganization.*—Division 4 of the Interstate Commerce Commission has ordered that the plan of reorganization of this company be submitted for acceptance or rejection to the holders of the prior lien first mortgage five per cent bonds due January 1, 1945, and to the holders of the first mortgage five per cent bonds which matured April 1, 1935, and to the holders of the common stock of this company.

MAINE CENTRAL.—*Equipment Trust Certificates.*—Division 4 of the Interstate Commerce Commission has modified its order of March 24, 1939, so as to limit to \$1,230,000 the amount of this company's 3¾ per cent equipment trust certificates which it may assume liability for. Originally, Division 4 had authorized the issuance of \$1,250,000 of equipment trust certificates, but the company later decided to issue only \$1,230,000.

MINNEAPOLIS & ST. LOUIS.—*Abandonment.*—Division 4 of the Interstate Commerce Commission has authorized this company to abandon that portion of a branch line extending from Laurel, Iowa, to Van Cleve, 6.8 miles.

MINNEAPOLIS & ST. LOUIS.—*Abandonment.*—Division 4 of the Interstate Commerce Commission has dismissed, at the request of the company, its application for authority to abandon a line extending from Watertown, S. Dak., to Aberdeen.

MINNEAPOLIS EASTERN.—*Bonds.*—This company has been granted authority by Division 4 of the Interstate Commerce Commission to extend from January 1, 1939, to January 1, 1949, the maturity date of \$150,000 of refunding mortgage bonds.

MISSOURI PACIFIC.—*Equipment Trust Certificates of Missouri-Illinois.*—The Mis-

Daylight

streaks through the West



One of Southern Pacific's famous "Daylight" trains, powered by a Lima-built 4-8-4 type steam locomotive.

During July and August of 1938, the Southern Pacific "Daylight" averaged 1030 passengers daily between San Francisco and Los Angeles. According to the Southern Pacific, this figure establishes the "Daylight" as the most heavily patronized one-section, long-distance daily train in the world.

Here is convincing evidence that modern, streamlined, de luxe equipment, designed to give the passengers the utmost in appointments, will stimulate railroad travel.

LIMA LOCOMOTIVE WORKS,



INCORPORATED, LIMA, OHIO

souri-Illinois has asked the Interstate Commerce Commission for authority to assume liability for \$590,000 of its equipment trust certificates, maturing in 10 equal annual installments of \$59,000 on August 1, in each of the years from 1940 to 1949.

NORTHEAST OKLAHOMA.—Securities.—This company has been authorized by Division 4 of the Interstate Commerce Commission to issue \$600,000 of first mortgage four per cent bonds and \$300,000 of common capital stock, consisting of 30,000 shares of a par value of \$10 each, to be delivered at par to the Eagle-Picher Mining & Smelting Company in exchange for \$300,000 of matured underlying bonds of the Oklahoma, Kansas & Missouri Interurban and the company's demand note in the face amount of \$613,000 on which the present unpaid balance is \$600,000. The bonds will be dated July 1, 1939 and will mature July 1, 1954.

PITTSBURGH & WEST VIRGINIA.—Sale of Obsolete Cars.—This company has submitted to the Interstate Commerce Commission a plan for the sale for salvage of 1,186 hopper cars, now obsolete, with the proceeds to be applied to the payment of outstanding equipment trust certificates. The company now has outstanding a total of \$1,400,000 of certificates, and the Reconstruction Finance Corporation holds the title to the equipment as partial security for outstanding loans. The petition asked both the commission and the R. F. C. to approve the plan. The proceeds to be obtained from the sale of the hopper cars, estimated at \$280,000, would be deposited with the trustee under the equipment lease together with certain additional funds so that the sum of \$200 may be paid on each \$1,000 certificate presented. The company stated that the holders of more than 82 per cent of the certificates have consented to the plan and the plan has been declared effective, subject to R. F. C. and I. C. C. approval.

WESTERN MARYLAND.—Equipment Trust Certificates.—This company has been granted authority by Division 4 of the Interstate Commerce Commission to assume liability for \$2,300,000 of two per cent equipment trust certificates, maturing in 10 equal annual installments of \$230,000 on August 1, in each of the years 1940 to 1949. The issue has been sold at 101.5311 to a group composed of Harriman Ripley & Co., Inc.; Blyth & Co., Inc.; and Laurence M. Marks & Co., all of New York City, and Alex. M. Brown & Sons of Baltimore, Md., making the average annual cost to the company approximately 1.7 per cent.

Average Prices of Stocks and Bonds

	July 18	Last week	Last year
Average price of 20 representative railway stocks..	30.38	28.11	29.37
Average price of 20 representative railway bonds..	59.67	58.23	60.77

Dividends Declared

Michigan Central.—\$25.00, semi-annually, payable July 31 to holders of record July 21.
 Wheeling & Lake Erie.—Prior Lien, \$1.00, quarterly; 5½ Per Cent Preferred, \$1.37½, quarterly, both payable August 1 to holders of record July 26.

Railway Officers

Louis F. DeRamus Appointed Chief Executive Officer of the Monon

On August 1, Louis F. DeRamus, general manager of the Western lines of the Southern, with headquarters at Cincinnati, Ohio, will become chief executive officer of the Chicago, Indianapolis & Louisville (Monon), which is jointly controlled by the Louisville & Nashville and the Southern. He will bring to the Monon 33 years experience on the Southern, which has embraced nearly all branches of railroad work. In succeeding to the leadership of the Monon, he follows a long line of illustrious men, including James Roosevelt, father of President Franklin Delano Roosevelt;



Louis F. DeRamus

Frederic A. Delano; Fairfax Harrison and H. R. Kurrie, whose death on December 24, 1938, was announced in the *Railway Age* of December 31, 1938.

The Monon's 549 miles of main line roughly form a letter "X," one leg extending from Chicago to Indianapolis, Ind., and the other from Michigan City, Ind., to Louisville, Ky., intersecting at Monon, Ind. In past years, due to its strategic value to other roads it has been variously allocated to different systems in plans for consolidation. Since 1904 the Louisville & Nashville and the Southern have jointly owned control of Monon stock and interchange a substantial volume of traffic with the Monon.

On December 30, 1933, the Monon filed a petition under Section 77B of the Bankruptcy Act and H. D. Pettibone, president of the Chicago Title & Trust Company, and H. R. Kurrie, president of the Monon, were appointed co-trustees; since the death of Mr. Kurrie, Mr. Pettibone has continued as sole trustee.

Various plans of reorganization of the Monon have been proposed. A plan of reorganization was filed on May 26, 1937, proposing that the Southern and the L. & N. continue in control of the Monon. A committee representing refunding mort-

gage bonds also filed a plan, under which present stockholders would receive nothing. On June 14 of this year, Division 4 of the Interstate Commerce Commission, after conducting hearings on both plans, entered an order withholding approval of any plan of reorganization at the time, on the ground that the current earnings of the Monon supplied no basis for a reorganization.

Mr. DeRamus was born at Verbena, Ala., on January 2, 1891, and entered railway service in September, 1906, as an operator in the chief dispatcher's office of the Southern at Selma, Ala. In October, 1907, he was appointed fuel clerk at that point and in January, 1908, he was made an accountant in the superintendent's office at Selma. He was advanced to stock and fire claim agent in January, 1910, and in June, 1912, he was promoted to claim agent in the law department at Birmingham, Ala. Mr. DeRamus was appointed safety supervisor at Birmingham in September, 1918, and in March, 1920, he was appointed a trainmaster on the Georgia, Southern & Florida (part of the Southern system) at Macon, Ga. In June, 1921, he was promoted to superintendent at Macon and in August, 1923, he was transferred to the Danville division, with headquarters at Greensboro, N. C. He was further advanced to general superintendent of the Northern district, with headquarters at Danville, Va., in July, 1926, and in April, 1930, he was transferred to Chattanooga, Tenn. Mr. DeRamus was promoted to general manager of the Western lines, with headquarters at Cincinnati on August 1, 1934. In his new position Mr. DeRamus' headquarters will be at Chicago.

FINANCIAL, LEGAL AND ACCOUNTING

Effective September 1, Owen W. Dynes, formerly general counsel, and now counsel for the trustees of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Chicago, will retire and A. N. Whitlock, general attorney, with headquarters at Seattle, Wash., will succeed him.

Mr. Whitlock was born at Richmond, Ky., on September 1, 1887, and attended the University of Kentucky, receiving the degree of A.B. in 1906 and that of M.A. in 1908, and obtained his legal training at the Harvard Law School from which he graduated in 1911. After a short period in New York, he moved to Missoula, Mont., to affiliate with the law school of the University of Montana. Continuing his law school connection he entered general practice, in 1912, and in 1917, he became a member of the firm of Murphy & Whitlock at Missoula. As a member of this firm, Mr. Whitlock was appointed local attorney for the Milwaukee in 1917, and solicitor for Montana in 1921. In April, 1935, he was promoted to general

Continued on next left-hand page



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attorney, with headquarters at Seattle, Wash., the position he now holds. During the period from 1915 to 1919, Mr. Whit-



Owen W. Dynes

lock was dean of the law school at the University of Montana and for many years he was a member of the Montana State Board of Law Examiners.

Mr. Dynes was born at Columbus, Wis., on May 31, 1869, and studied law at Cornell University. After being admitted to the bar in 1895, he aided in the first revision of the Starr & Curtis revised statutes of Illinois, and from 1897 to 1908, he was trial attorney with the Fidelity & Casualty Company, and was engaged in general corporation practice. In the latter year he entered railway service as assistant general solicitor of the Milwaukee, with headquarters at Chicago, which position he held until 1912, when he was promoted to commerce counsel. In 1918 he was pro-



A. N. Whitlock

moted to general attorney and in October, 1922, he was advanced to general solicitor. Mr. Dynes was further advanced to general counsel, with headquarters as before at Chicago, on January 1, 1931, and his title was later changed to counsel for the trustees.

OPERATING

J. W. Hevron, general superintendent of the Northern lines of the Illinois Central, with headquarters at Chicago, has

been appointed superintendent of the Springfield division, with headquarters at Clinton, Ill., succeeding W. R. Gillam, who has been assigned to other duties, and T. J. Quigley, general superintendent of the Southern lines, with headquarters at New Orleans, La., has been appointed superintendent of the New Orleans Terminal, with the same headquarters, relieving J. W. Cousins, who has retired. The positions of general superintendent have been abolished.

L. E. Thornton, assistant division engineer on the Alton at Bloomington, Ill., has been promoted to assistant trainmaster, with the same headquarters, a newly-created position.

F. P. Lee, chief clerk to the general superintendent of the St. Louis Southwestern at Tyler, Tex., has been promoted to superintendent of personnel, with the same headquarters, succeeding J. W. McColgan, who retired on July 1.

William L. Wood has been promoted to trainmaster on the Northern Pacific at Dickinson, N. D., instead of Glendive, Mont., as announced in the *Railway Age* of July 15. Mr. Wood succeeded Thomas J. Kane, whose transfer to Centralia, Wash., was announced in the same issue.

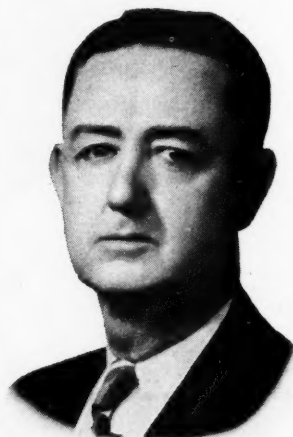
W. J. Hotrum, whose appointment as superintendent of terminals of the Canadian National at Black Rock, N. Y., was noted in the *Railway Age* of July 1, entered the service of the Grand Trunk as clerk in the transportation department in 1905 and later became chief clerk. In 1913 Mr. Hotrum was transferred to Toronto, Ont., in a similar capacity and in 1926 was appointed agent at Walkerville, Ont. He returned to Toronto a year later as district agent and became supervisor of car service in 1929. He was promoted to general agent at Toronto in 1935, the position he held until his recent appointment as superintendent of terminals.

Clark Hungerford, superintendent of the Birmingham division of the Southern and of the Northern Alabama Railway, with headquarters at Birmingham, Ala., has been appointed general manager of the Western lines of the Southern, with headquarters at Cincinnati, Ohio, succeeding L. F. DeRamus. F. W. Okie, superintendent of the Alabama Great Southern, the New Orleans & Northeastern, and the Woodstock & Blocton, with headquarters at Birmingham, has been appointed to succeed Mr. Hungerford. F. B. Birthright has been appointed superintendent of the Charleston division of the Southern, with headquarters at Charleston, S. C., succeeding E. L. Keister, who replaces Mr. Okie.

Norman A. Walford, whose appointment as superintendent of the Stratford division of the Canadian National at Stratford, Ont., was reported in the *Railway Age* of July 1, was born at Walkerton, Ont. Mr. Walford commenced his railway career in that town as assistant operator in 1907 and after serving as operator at Wiarton, Ont., he was appointed agent, in which capacity he served at various

stations. In 1918 he was promoted to claims inspector for the Stratford division, subsequently becoming district agent and district supervisor of car service. In 1929 Mr. Walford became passenger trainmaster at Toronto, Ont., and three years later was appointed district supervisor of car service. In 1934 he went to London, Ont., as assistant superintendent and became superintendent of terminals at Black Rock, N. Y., in 1938, the position he held until his recent appointment as superintendent of the Stratford division.

Floyd A. Baker, whose promotion to division superintendent on the Atchison, Topeka & Santa Fe, with headquarters at Wellington, Kan., was announced in the *Railway Age* of July 1, was born at Fayette, Ala., on April 15, 1885, and entered railway service on April 30, 1907, as a brakeman on the Santa Fe at Amarillo, Tex. He was promoted to conductor on



Floyd A. Baker

February 21, 1910, and in 1920, he entered yard service at El Paso, Tex. Mr. Baker was advanced to night yardmaster at Clovis, N. M., on March 1, 1920, and on December 15 of the same year, was appointed general yardmaster at that point. On November 1, 1926, he was promoted to assistant trainmaster on the Plains division at Amarillo. He was later appointed traveling yardmaster and on January 21, 1928, he was appointed general yardmaster at Clovis. On June 15, 1929, Mr. Baker was advanced to trainmaster on the Plains division at Amarillo, and was subsequently transferred to the Slaton division at Slaton, Tex., on September 30, 1930, to the Pecos division at Clovis on June 30, 1937, and to the New Mexico division at Las Vegas, N. M., on October 13, 1938. He was located at the later point until his recent promotion, which was effective July 1.

Howard O. Wagner, whose promotion to division superintendent on the Atchison, Topeka & Santa Fe, with headquarters at Arkansas City, Kan., was announced in the *Railway Age* of July 1, was born at Enterprise, Kan., on March 3, 1891, and attended Kansas State College for three years. He entered railway service on July 1, 1912, between terms of school serving in various capacities in the mechanical department of the Santa Fe at Wellington, Kan., during that summer and as a chairman



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* * * * *

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in the engineering department at Pueblo, Colo., the following summer, returning to school in September. He returned to the engineering department of the Santa Fe at Pueblo on July 1, 1914, as a rodman and on December 15, 1914, he was transferred to Amarillo, Tex. Mr. Wagner was promoted to transitman on June 16, 1915, and to office engineer on November 16, 1916. On December 1, 1917, he was appointed assistant chief clerk in the superintendent's office at Amarillo and one month later he returned to the position of office engineer. On July 1, 1920, he was appointed building inspector, with headquarters at Amarillo, and on March 1, 1922, he was promoted to roadmaster, with headquarters at Wellington, Kan. Mr. Wagner was advanced to division engineer, with headquarters at Amarillo, on September 16, 1923, and on



Howard O. Wagner

August 1, 1937, he was promoted to trainmaster at Wellington, the position he held until his recent promotion which was effective July 1.

ENGINEERING AND SIGNALING

J. F. A. Gosselin has been appointed division engineer of the Laurentian division of the Canadian National, with headquarters at Quebec, Que.

W. F. Price, assistant signal engineer of the Coast lines of the Atchison, Topeka & Santa Fe, with headquarters at Los Angeles, Cal., has been promoted to signal engineer of the Gulf, Colorado & Santa Fe, with headquarters at Galveston, Tex., succeeding **E. P. Hanson**, who has retired.

TRAFFIC

W. F. Day, freight traffic agent on the Union Pacific at Oakland, Cal., has been promoted to general agent at that point succeeding **M. S. Swanson**.

R. V. Oldham, general freight and passenger agent of the Ann Arbor, with headquarters at Toledo, Ohio, has resigned to enter other business.

George H. Hanes, chief clerk in the freight tariff bureau of the Chicago, Rock Island & Pacific at Chicago, has been pro-

moted to assistant general freight agent in charge of that bureau in Chicago.

L. B. Alfs, traffic agent on the Chicago Great Western at Chicago, has been promoted to general agent at St. Louis, Mo., succeeding **R. J. Sefton**, deceased. **G. P. Roberts**, traffic agent at Chicago, has been promoted to general agent at Waterloo, Ia., relieving **C. G. Stewart**, who has been appointed general agent at Chicago, a newly-created position.

MECHANICAL

H. T. Cover, master mechanic on the Pennsylvania at Wilmington, Del., has been transferred to Columbus, Ohio, succeeding **Walter O. Teufel**, whose promotion to superintendent of the Indianapolis division, with headquarters at Indianapolis, Ind., was announced in the *Railway Age* of July 8.

C. O. Shull, master mechanic of the Western Pennsylvania division of the Pennsylvania, with headquarters at Pitscairn, Pa., has been transferred in the same capacity to Wilmington, Del. **E. R. Buck**, master mechanic at East Altoona, Pa., has been transferred in the same capacity to the Conemaugh and Monongahela divisions, with headquarters at Pittsburgh, Pa. **J. L. Marks**, assistant master mechanic at Harrisburg, Pa., has been appointed master mechanic at East Altoona. **H. C. Wright**, foreman engine house and car shops at Grand Rapids, Mich., has been appointed assistant master mechanic of the Philadelphia division at Harrisburg. **B. J. Murtha**, engineman, Philadelphia Terminal division, has been appointed assistant road foreman of engines of the Maryland division, with headquarters at Baltimore, Md.

PURCHASES AND STORES

Frank W. Holt, whose promotion to purchasing agent of the Erie, with headquarters at Cleveland, Ohio, was announced in the *Railway Age* of July 1, was born



Schuyler Studios, Inc.

Frank W. Holt

at Ridgewood, N. J., on August 2, 1885, and graduated from Pratt Institute, Brooklyn, N. Y., in June, 1903. He entered railway service on September 8, 1903, as

a clerk in the purchasing department of the Erie and was promoted to chief clerk on September 1, 1915. Mr. Holt was advanced to assistant to the manager of purchases on May 16, 1919, and on September 1, 1923, he was appointed purchaser, with headquarters at New York. On July 16, 1930, he was appointed assistant purchasing agent, continuing in that position until his promotion to purchasing agent, which was effective July 1.

L. C. Hazlett, tie and timber inspector on the Missouri-Kansas-Texas at Shreveport, La., has been promoted to chief tie and timber inspector, with headquarters at Parsons, Kan., succeeding **William Elam**, whose retirement was announced in the *Railway Age* of July 15.

OBITUARY

Charles Weedon Cochran, at one time engineer maintenance of way of the Cleveland, Cincinnati, Chicago & St. Louis, died on May 26.

R. J. Sefton, general agent for the Chicago Great Western at St. Louis, Mo., died at that point on June 30. Mr. Sefton had been ill for some time.

C. F. Duvall, assistant engineer on the Texas & Pacific, with headquarters at Big Spring, Tex., died in the Texas & Pacific employee's hospital at Marshall, Tex., on June 30.

Sir George McLaren Brown, who retired on October 31, 1936, as European general manager of the Canadian Pacific at London, England, after almost 50 years of service with that road, died in a hospital at Toronto, Ont., on June 28, at the age of 74.

Earl M. Steer, an examiner on the staff of the Interstate Commerce Commission since 1917, died at the age of 53 at Pasadena, Cal., on July 10, while on a leave of absence after conducting a hearing in San Francisco, which had ended five days before.

Fred D. Miller, who retired as general freight agent and general passenger agent on the Illinois Central with headquarters at St. Louis, Mo., in 1937, died at his home at St. Petersburg, Fla., on July 15. Mr. Miller was born at Mason City, Ill., on October 1, 1870, and entered railway service in August, 1887, as a telegraph operator on the Illinois Central. In 1890 he became a ticket seller at Cairo, Ill., and four years later he was promoted to city passenger agent. In 1896, he was appointed traveling passenger agent at New Orleans, La., and was later transferred successively to San Antonio, Tex., and Atlanta, Ga. In 1908, he was advanced to district passenger agent at Birmingham, Ala., and three years later he was promoted to division passenger agent at St. Louis, Mo. Mr. Miller was further advanced to assistant general passenger agent at St. Louis in 1920, and in December, 1929, he was promoted to general freight agent and general passenger agent at that point, the position he held until his retirement.

Table of Operating Revenues and Expenses appears on next left-hand page

Moisture-Free Steam

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Steam entering the superheater should be moisture-free . . . it keeps locomotive fuel costs down. The tabulation shows the savings effected with superheated steam when there is no moisture in the steam at the superheater inlet. Any lowering of the superheat through admission of wet steam to the superheater would increase the horsepower cost.

STEAM TEMPERATURE	STEAM PER I.HP.-HR.	SAVING IN STEAM From the Use of Superheat
Saturated Steam	28 lb.	—
150° Superheat	21 lb.	25.0 %
200° Superheat	18 lb.	35.6 %
250° Superheat	16 lb.	43.0 %
350° Superheat	14 lb.	50.0 %

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July 22, 1939

Operating Revenues and Operating Expenses of Class I Steam Railways

Compiled from 136 Monthly Reports of Revenues and Expenses Representing 140 Class I Steam Railways
(Switching and Terminal Companies Not Included)

FOR THE MONTH OF MAY, 1939 AND 1938

Item	United States		Eastern District		Southern District		Western District	
	1939	1938	1939	1938	1939	1938	1939	1938
Miles of road operated at close of month	233,535	234,694	57,576	57,955	44,477	44,711	131,482	132,028
Revenues:								
Freight	\$243,640,917	\$217,859,672	\$98,840,642	\$87,167,287	\$45,570,166	\$44,977,434	\$99,230,109	\$85,714,951
Passenger	31,758,397	30,830,579	18,136,475	17,336,528	3,612,258	3,723,725	10,009,664	9,770,326
Mail	8,227,797	7,893,549	3,183,776	3,012,945	1,394,796	1,378,750	3,649,225	3,501,854
Express	5,728,835	3,900,345	2,186,450	1,194,217	1,445,598	887,460	2,096,787	1,818,668
All other operating revenues	13,262,002	12,125,255	6,540,472	6,065,635	1,542,176	1,605,977	5,179,354	4,453,643
Railway operating revenues	302,617,948	272,609,400	128,887,815	114,776,612	53,564,994	52,573,346	120,165,139	105,259,442
Expenses:								
Maintenance of way and structures	41,826,339	34,309,654	14,895,697	12,281,257	6,826,265	6,199,498	20,104,377	15,828,899
Maintenance of equipment	59,220,508	53,007,538	24,431,661	21,763,679	11,177,752	10,332,619	23,611,095	20,911,240
Traffic	9,188,195	8,709,298	3,324,072	3,218,656	1,647,886	1,582,091	4,216,237	3,908,551
Transportation—Rail line	113,391,443	107,456,821	51,319,050	47,296,091	18,620,274	18,292,318	43,452,119	41,868,412
Transportation—Water line	438,515	386,608	.....	.....	.....	.....	438,515	386,608
Miscellaneous operations ..	2,928,244	2,898,651	1,284,488	1,325,286	325,657	327,060	1,318,099	1,246,305
General	10,789,877	10,586,811	4,202,299	4,241,120	2,041,679	1,995,598	4,545,899	4,350,093
Transportation for investment—Cr.	372,067	301,373	26,128	81,045	66,985	35,722	278,954	184,606
Railway operating expenses	237,411,054	217,054,008	99,431,139	90,045,044	40,572,528	38,693,462	97,407,387	88,315,502
Net revenue from railway operations	65,206,894	55,555,392	29,456,676	24,731,568	12,992,466	13,879,884	22,757,752	16,943,940
Railway tax accruals	28,831,347	28,350,831	12,826,749	12,295,004	5,344,269	5,293,500	10,660,329	10,762,327
Railway operating income	36,375,547	27,204,561	16,629,927	12,436,564	7,648,197	8,586,384	12,097,423	6,181,613
Equipment rents—Dr. balance	8,199,818	7,940,475	3,228,126	3,156,117	985,084	1,011,959	3,986,608	3,772,399
Joint facility rent—Dr. balance	3,074,965	2,598,402	1,693,549	1,219,998	328,366	337,226	1,053,050	1,040,178
Net railway operating income	25,100,764	16,665,684	11,708,252	8,060,449	6,334,747	7,237,199	7,057,765	1,368,036
Ratio of expenses to revenues (per cent)	78.5	79.6	77.1	78.5	75.7	73.6	81.1	83.9
Depreciation included in operating expenses	16,882,693	16,922,054	7,425,488	7,423,830	3,327,351	3,289,235	6,129,854	6,208,989
Pay roll taxes	8,544,778	7,931,964	3,592,492	3,320,100	1,484,298	1,417,607	3,467,988	3,194,257
All other taxes	20,286,569	20,418,867	9,234,257	8,974,904	3,859,971	3,875,893	7,192,341	7,568,070

FOR FIVE MONTHS ENDED WITH MAY, 1939 AND 1938

Miles of road operated at close of month*	233,653	234,764	57,613	57,982	44,497	44,718	131,543	132,064
Revenues:								
Freight	\$1,197,329,001	\$1,073,033,373	\$502,618,106	\$429,621,776	\$241,921,864	\$226,094,595	\$452,789,031	\$417,317,002
Passenger	159,772,375	162,314,524	88,607,673	88,764,404	24,534,171	25,509,289	46,630,531	48,040,831
Mail	40,022,707	38,968,957	15,377,600	14,883,104	6,990,983	6,867,128	17,654,124	17,218,725
Express	22,786,296	18,876,156	8,634,649	6,348,113	5,892,086	4,578,570	8,259,561	7,949,473
All other operating revenues	62,599,442	60,793,358	31,051,504	30,292,071	8,408,312	8,494,759	23,139,626	22,006,528
Railway operating revenues	1,482,509,821	1,353,986,368	646,289,532	569,909,468	287,747,416	271,544,341	548,472,873	512,532,559
Expenses:								
Maintenance of way and structures	174,933,933	159,563,100	66,856,324	59,449,445	33,079,161	31,710,504	74,998,448	68,403,151
Maintenance of equipment	304,373,830	278,848,970	130,757,646	115,451,835	58,379,440	54,128,430	115,236,744	109,268,705
Traffic	43,757,282	43,046,680	15,697,742	15,553,450	8,369,463	8,331,312	19,690,077	19,161,918
Transportation—Rail line	566,767,175	561,304,709	255,898,368	247,877,029	97,263,735	97,241,865	213,605,072	216,185,815
Transportation—Water line	1,997,530	2,020,435	.....	.....	.....	.....	1,997,530	2,020,435
Miscellaneous operations ..	14,800,003	15,530,605	6,412,567	6,970,389	2,248,611	2,249,249	6,138,825	6,310,967
General	53,579,158	54,201,182	21,366,713	21,501,748	10,125,675	10,336,270	22,086,770	22,363,164
Transportation for investment—Cr.	1,250,406	1,053,989	95,231	180,815	242,685	187,637	912,490	685,537
Railway operating expenses	1,158,958,505	1,113,461,692	496,894,129	466,623,081	209,223,400	203,809,993	452,840,976	443,028,618
Net revenue from railway operations	323,551,316	240,524,676	149,395,403	103,286,387	78,524,016	67,734,348	95,631,897	69,503,941
Railway tax accruals	142,900,527	140,655,147	61,303,700	59,323,535	28,738,885	28,062,431	52,857,942	53,269,181
Railway operating income	180,650,789	99,869,529	88,091,703	43,962,852	49,785,131	39,671,917	42,773,955	16,234,760
Equipment rents—Dr. balance	39,799,123	39,957,470	17,138,047	16,103,212	3,826,493	4,297,006	18,834,583	18,657,252
Joint facility rent—Dr. balance	14,684,623	14,786,066	8,032,758	7,885,297	1,627,393	1,656,012	5,024,472	5,244,757
Net railway operating income	126,167,043	46,025,993	62,920,898	19,974,343	44,331,245	33,718,899	18,914,900	7,667,249
Ratio of expenses to revenues (per cent)	78.2	82.2	76.9	81.9	72.7	75.1	82.6	86.4
Depreciation included in operating expenses	84,145,193	84,058,780	36,752,402	36,652,571	16,632,114	16,407,987	30,760,677	30,998,222
Pay roll taxes	41,988,946	40,593,925	17,986,117	17,134,447	7,522,749	7,373,495	16,480,080	16,085,983
All other taxes	100,911,581	100,061,222	43,317,583	42,189,088	21,216,136	20,688,936	36,377,862	37,183,198

* Represents an average of the mileage reported at the close of each month within the period.

† Deficit or other reverse items.

Compiled by the Bureau of Statistics, Interstate Commerce Commission. Subject to revision.